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Regulations and Non-Regulatory Revisions to State Implementation Plan: Kansas

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

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Regulations and Non-Regulatory Revisions to State Implementation Plan: Kansas

By

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Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
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This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

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This report has been reviewed by the Control Programs Development Division of the Office of Air Quality Planning and Standards, EPA, and approved for publication. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of the entire document are available for inspection and copying at EPA Headquarters (401 M Street SW, Washington, DC 20460), EPA's Office of Air Quality Planning and Standards (Room 826, 411 West Chapel Hill Street, Durham, NC 27701), and the appropriate EPA Regional Offices. Documents containing only the regulatory portions of each State Implementation Plan may be ordered for a nominal fee from the National Technical Information Services, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: Kansas, EPA-450/2-80-023, prepared under Contract 68-02-3388, July 31, 1980.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF KANSAS SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
04/03/81	03/10/80	46FR20170	Kansas City, Kansas Air Pollution Control Regulations.
04/03/81	09/22/80 09/25/80	46FR20170	Revised regulations for control of VOC and New Source Review. Kansas Administrative Regulations 28-19-16 to 28-19-16m; and 28-19-61 to 28-19-69.
07/07/81	05/21/81	46FR35089	Letter certifying that the temporary regulations for VOC and new source review permits became permanent and are effective.

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AIR POLLUTION EMISSION CONTROL REGULATIONS

28-19-6 STATEMENT OF POLICY

It is the intent of these regulations to establish emission reporting requirements, emission control requirements, and requirements for open burning believed necessary to protect human health and safety, prevent injury to plant and animal life and property, and consider and foster the comfort and convenience of the State's inhabitants. The emission limitations established herein are intended to reflect those values which are considered to be attainable with technology available at the time of their adoption; where advances in technology will permit more stringent control, it is the intent of the Kansas State Board of Health that the Director shall encourage those persons responsible for new or altered emission sources to voluntarily provide the highest degree of control that he deems to be technically and economically feasible at the time that such controls are provided. It is also the intent of the Board of Health that where existing installations have been exempted from regulations limiting the amount of emissions of specific contaminants, but are equipped with control devices effecting such emissions, such control devices shall be continually operated so as to maintain the maximum practical degree of efficiency attainable with such equipment. It is further intended in establishing these regulations that reasonable effort will be made to encourage voluntary cooperation by persons or groups, affected by these requirements, and upon failure to obtain and/or maintain such cooperation, such administrative and judicial proceedings as are required to secure compliance with them is to be initiated.

28-19-7 DEFINITIONS

All terms and abbreviations used in emission and open burning control regulations shall have the meanings set forth herein:

Alter shall mean any physical change in, or change in the method of operation of, any machine, equipment, device, or other article, or combination thereof which constitutes a source of pollutant emissions subject to the provisions of these regulations, and which increases the amount of such emissions.

Board shall mean the Kansas State Board of Health.

Contaminant shall mean dust, fumes, smoke or other particulate, vapor, gas, odorous substance or any combination thereof, but not including uncombined water vapor or steam condensate.

Control Device shall mean any equipment, device or other article designed and/or installed for the purpose of reducing or preventing the discharge of contaminant emissions to the air.

Department shall mean the Kansas State Department of Health.

Direct Heating Equipment shall mean any device where fuel is burned in direct contact with, and for the purpose of heating, air which comes in direct contact with the material being processed.

Director shall mean the Director of the Division of Environmental Health of the Kansas State Department of Health and Chief Engineer of the Kansas State Board of Health, or his designated representative.

Emission Source shall mean any machine, equipment, device or other article or operation that directly, or indirectly, releases contaminants into the outdoor atmosphere.

Existing shall mean (1) any processing machine, equipment, device or other article, or combination thereof, or indirect heating equipment, or incinerator completed, under construction, or under purchase contract on the effective date of any applicable regulation, (2) any open burning operation that had been intentionally carried out incidental to activities of the same person legally responsible for such burning on the effective date of the applicable regulation, and on the same premises, either continually or intermittently over a period of at least one calendar year prior to the effective date of the applicable regulation, and (3) any other processing operation or established use of a premise in existence on the effective date of this regulation.

Indirect Heating Equipment shall mean any device where fuel is burned to produce usable heat by transfer through a heat conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to, the products of combustion.

Incinerator shall mean any device or structure used for the destruction, or volume reduction, of garbage, rubbish, or other liquid or solid waste materials by combustion pursuant to disposal or salvaging operations.

Modified Open Burning Operation shall mean an open burning operation in which the contaminants emitted to the ambient air as a result of combustion are reduced and/or controlled through positive regulation of fuel/air ratios, air screens or other control techniques, but excluding combustion devices used solely for the purpose of disposing of flammable gases.

Official Observer shall mean a designated representative of the Department who has been certified by the Department as being trained, and qualified on the basis of actual testing, to determine the degree of opacity of visible plumes by direct visual observation. The testing procedure shall be required to be re-tested at least once every six months in order to maintain their certification.

Opacity shall mean the degree to which an official observer's view of transmitted light is obscured by passing through a contaminant emission

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with zero percent opacity being equivalent to perfect transparency and 100 percent opacity being perfectly opaque.

Open Burning Operation shall mean the burning of any materials wherein contaminants resulting from such combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. For the purposes of this definition, a chamber shall be considered enclosed when during the combustion process only such appertures, ducts, stacks, flues or chimneys as are required to supply combustion air to permit the escape of exhaust gases are open.

Particulate shall mean any dispersed matter, solid or liquid, except uncombined water the individual aggregates of which are larger than single small molecules (about .0002μ in diameter), but smaller than 500 microns in diameter.

Person shall mean any inidvidual, partnership, firm, association, municipality, public or private corporation, subdivision or agency of the state, trust, estate or any other legal entity.

Potential Contaminant Emission Factor shall mean an average value of the amount of contaminants that have been found to be associated with a specific type of processing or burning operation as compared to a given quantity of material processed or some other meaningful parameter. For the purpose of these regulations such factors shall be those published by the Federal air pollution control agency or otherwise recognized by official air pollution control agencies.

Potential Contaminant Emission Rate shall mean the total weight at which a contaminant is, or in the absence of control equipment, would be emitted from an air contaminant source when such source is operating at its maximum capacity. For the purposes of these regulations, it may be determined by: (1) sampling in a flue or duct prior to the inlet of any control device serving the flue or duct, (2) estimating such emissions by performing a "material balance" calculation (difference between processing input weight and output weight of materials), (3) using potential contaminant emission factors as published by the Department, or by any other estimating technique mutually agreeable to the Department and the person responsible for operation of the source.

Premise shall mean any parcel of land including any structures or equipment thereon under one ownership.

Processing shall mean any operation related to the handling, storage, treatment and/or conversion of input materials to produce a salable or usable end product.

Smoke shall mean particulate emissions resulting from incomplete combustion consisting primarily of carbon, ash and other material that form a visible plume in the ambient atmosphere.

Vehicular Source shall mean the propelling motor(s) of every self-propelled device in, upon or by which any person or property is or may be transported or drawn.

Waste(s) shall mean all discarded solid and liquid materials resulting from industrial, commercial and agricultural operations and from community activities not intentionally disposed of by means of water carried systems into the waters of the State.

28-19-8 REPORTING REQUIRED

A. No person shall:

(1) Install or alter any processing machine, equipment, device or other article, or combination thereof, capable of emitting any potential contaminant emissions equal to or in excess of the levels specified in Section D of this regulation.

(2) Install or alter any indirect heating equipment with a rated or operating input capacity equal to or in excess of that listed in Section D of this regulation.

(3) Install or alter any waste incinerator with a rated or operating capacity in excess of that listed in Section D of this regulation, or

(4) Initiate, expand or relocate any open burning operations,

without having first reported on such proposed activity to the Department in the manner prescribed by Section C of this regulation, at least sixty (60) days prior to initiating the activity.

B. No person shall:

(1) Use any processing machine, equipment, device or other article, or combination thereof, capable of emitting any potential contaminant emission equal to, or in excess of those levels specified in Section D of this regulation.

(2) Use any indirect heating equipment with a rated or operating input capacity equal to, or in excess of that listed in Section D of this regulation.

(3) Use any incinerator with a rate or operating capacity in excess of that listed in Section D of this regulation, or

(4) Conduct any open burning operations,

without having reported such use or operation to the Department in the manner prescribed in Section C of this regulation. Provided, however, that the use of such items existing at the time of the effective date of this regulation or the conducting of existing open burning operations shall not be considered in violation with this reporting requirement until such time as the person responsible for such use or operation is notified in writing by the Department that such use or operation is to be reported. Upon receipt of such notification, the person responsible for such use or operation shall submit the required report to the Department not later than sixty (60) days thereafter.

C. Reports required in Sections A and B of this regulation shall be on forms furnished by the Department and shall include the following information:

(1) The location of the existing, or proposed, facilities, alterations or operations.

(2) A description of the existing, or proposed, facilities, alterations or operations including all processes employed; the nature and amounts of fuel and other materials involved; the probable nature, rate of discharge, and time duration of contaminant emissions; and any such other information as is relevant to air pollution control and available or capable of being assembled in the normal course of operations. Where an affidavit is provided stating that submission of any portion of such information would lead to disclosure of a proprietary process or method of manufacture or production, only such information as is directly related to the determination of process weights involved and the amount, chemical and physical nature, and point of discharge of contaminant emissions to the atmosphere shall be required to be submitted in written form.

(3) The name and mailing address of the person legally responsible for the reported activity.

D. The levels and types of emissions from the following classes of contaminant sources are deemed to be of such a nature that they may individually or cumulatively tend significantly to become injurious to human health and welfare, animal and plant life, or property or that they are potentially capable of unreasonably interfering with the enjoyment of life and property of the inhabitants of this state, and shall therefore by reported as provided for in Sections A and B of this regulation:

(1) All processing machines, equipment, devices or other articles or combinations thereof having a potential contaminant emission rate of:

a. One (1) or more pounds of particulate during any hour of operation

b. Two (2) or more pounds of SO_2 and/or SO_3 during any hour of operation

c. Fifty (50) or more pounds of Oxides of Nitrogen (calculated as NO_2) during any consecutive 24 hour period

d. Fifty (50) or more pounds of Carbon Monoxide during any consecutive 24 hour period

e. Fifty (50) or more pounds of gaseous Hydrocarbons, excluding Methane, during any consecutive 24 hour period

(2) All fuel burning devices used in indirect heating equipment which:

a. Burn coal and have a rated or input capacity of 350,000 BTU's per hour or more

b. Burn Grade 5 or heavier fuel oil and have a rated or input capacity of 350,000 BTU's per hour or more

c. Burn Grade 4 or lighter fuel oil, other than as a standby fuel when natural gas is not available, and have a rated or input capacity of 1,000,000 BTU's per hour or more

d. Burn gaseous fuels, or Grade 4 and lighter fuel oils on a standby basis, and have a rated or input capacity of 100,000,000 BTU's per hour or more.

(3) All incinerators used to dispose of refuse by burning or for the processing of salvageable materials except that those incinerators installed on residential premises containing five (5) or less dwelling units and carried out incidental to the normal habitation of such dwelling units are deemed to be the control responsibility of local jurisdictions and are exempt from the provisions of Regulations 28-19-8 and 28-19-9.

(4) All open burning operations except that those operations being conducted on residential premises containing five (5) or less dwelling units are deemed to be the control responsibility of local jurisdictions and are exempt from the provisions of Regulations 28-19-8 and 29-19-9.

(5) Any source, except vehicular sources, or operation responsible for the emission of particulate plumes of such opacity so as to render them visible, provided that such emissions are reported to the Department to be interfering with the enjoyment of life and property by two or more unrelated individuals.

(6) Any source or operation that emits any contaminant that may be adjudged to be, or tend to be, significantly injurious to human

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health or welfare, animal or plant life, or property or capable of unreasonably interfering with the enjoyment of life or property because of its specific chemical or physical nature or the quantity discharged.

28-19-9 TIME SCHEDULE FOR COMPLIANCE

Except as otherwise noted in specific emission control regulations, compliance with these regulations shall be according to the following schedules:

A. All new installations or altered installations required to be reported under the provisions of Regulation 28-19-8 (A) shall be in compliance with all applicable emission control regulations as of going into operation any time after the effective date of the applicable emission control regulation. Provided, however, such installations may, at the request of the operator and under conditions approved by the Department, be operated for such specified time periods as are required to make necessary adjustments on the equipment before compliance must be demonstrated.

B. All open burning operations initiated, expended or relocated after the effective date of the applicable burning control regulation shall be in compliance with the provisions of these regulations controlling such open burning.

C. All existing installations not in compliance with these regulations on the effective date shall comply with the regulations within one hundred and eighty (180) days after notification that such installation or operation is to be reported under the provisions of Regulation 28-19-8 (B).

D. All open burning operations considered to be existing on January 1, 1971, and which have not previously been required to report under the provisions of Regulation 28-19-8, and which are not exempted under Regulation 28-19-47 shall be required to comply with Regulation 28-19-45 effective January 1, 1974.

28-19-10 CIRCUMVENTION OF CONTROL REGULATIONS

A. No person shall cause or permit the installation or use of any machine, equipment, device or other article, or alter any process in any manner which, without resulting in a reduction of the total amount of contaminants emitted, conceals or dilutes the emissions of contaminants which would otherwise violate provisions of these control regulations.

B. Exception to Section A of this regulation may be granted by the Department, upon request, provided that such action is intended to convert the physical and/or chemical nature of the contaminant emission and that failure to reduce total contaminant emissions results solely from the introduction of contaminants which are not deemed to be detrimental to the public interest.

28-19-11 EXCEPTIONS DUE TO BREAKDOWNS OR SCHEDULED MAINTENANCE

A. Abnormal operating conditions resulting from malfunction breakdown, and or necessary repairs to control or processing equipment and appurtenances which cause emissions in excess of the limitations specified in the emission control regulations shall not be deemed violations provided that:

   (1) The person responsible for the operation of the emission source notifies the Department of the occurrence and nature of such malfunctions, breakdown, or repairs, in writing, within ten (10) days of noted occurrence.

   (2) The number of occurrences of such breakdowns is not deemed excessive by the Department and appropriate reasonable action is taken to initiate and complete any necessary repairs and place the equipment back in operation as quickly as possible.

B. Emissions in excess of the limitations specified in these emission control regulations resulting from scheduled maintenance of control equipment and appurtenances will be permitted only on the basis of prior approval by the Department and upon demonstration that such maintenance cannot be accomplished by maximum reasonable effort, including off-shift labor where required, during periods of shutdown of any related equipment.

C. Excessive contaminant emissions from fuel burning equipment used for indirect heating purposes resulting from fuel or load changes, start up, soot blowing, cleaning of fires, and rapping of precipitators will not be deemed violations provided that they do not exceed a period or periods aggregating more than five (5) minutes during any consecutive one (1) hour period. Provided, however, that where the operator of such equipment can demonstrate to the satisfaction of the Department that any such specific operational procedures will require that the allowable time period for excessive emissions be extended beyond five (5) minutes during any one hour, the Department may authorize, upon request of the operator, an adjusted time schedule for permitting such excessive emissions. Such authorization shall require that visible emissions not exceed a shade or density darker than that designated as Ringelmann No. 3 on the Ringelmann Chart; and shall specify an appropriate time and daily frequency schedule for such excessive emissions.

28-19-12 MEASUREMENT OF EMISSIONS

A. The Department may require any person responsible for the operation of an emission source to make or have tests made to determine the rate of contaminant emissions from the source whenever it has reason to believe on the basis of estimates of potential contaminant emission rates from the source and due consideration to probable efficiency of any existing control device, or visible emission determinations made by an official observer, that existing emissions exceed the limitations specified in these control regulations. Such tests may also be required pursuant to verifying that any newly installed control device meets performance specifications. If such a test demonstrates that the applicable emission requirement is met, no more than one (1) such test shall be required during any twelve (12) consecutive calender month period. Provided, however, that should the Department determine that the test did not represent normal operating conditions or emissions additional tests may be required. Such a requirement shall be considered as an order as provided for in K.S.A. 1970 Supp. 65-3011 and subject to all administrative and legal requirements specified therein.

Required tests shall be conducted in accordance with procedures approved by the Director as being in accordance with sound analytical and sampling procedures. Such tests shall be conducted by reputable, qualified individuals, as approved by the Department, and a certified written copy of the test results signed by the person conducting the test shall be provided to the Department.

B. The Department may conduct tests of emissions of contaminants from any source. Upon written request from the Department, the person responsible for the source to be tested shall cooperate with the Department in providing all necessary test ports in stacks or ducts and such other safe and proper facilities, exclusive of instruments and sensing devices, as may be reasonably required to conduct the test with due regard being given to expenditures and possible disruption of normal operation of the source. A report concerning the findings of such tests shall be furnished to the person responsible for the source upon request.

C. The Director may require the owner or operator of any emission source which is subject to the provisions of these regulations to install, use, and maintain such stationary monitoring equipment as is required to demonstrate continuing compliance with any applicable emission limitations, and to maintain records and make reports regarding such measured emissions to the Department in a manner and on a schedule to be determined by the Director.

28-19-13 INTERFERENCE WITH ENJOYMENT OF LIFE AND PROPERTY

Compliance with the provisions of these emission control regulations (including exemptions included therein) notwithstanding, should it be found after public hearing that any specific emission source is, tends to be, will be, or will tend to be significantly injurious to human health or welfare, animal or plant life, or property or is or will be unreasonably interfering with the enjoyment of life and property of any inhabitant of the state, or will interfere with the attainment or maintenance of any National ambient air quality standard an appropriate order may be issued to require such additional prevention, abatement or control of the emission involved as is necessary to effect the purposes of the enabling act.

28-19-14 REVIEW OF NEW OR ALTERED SOURCES

A. This regulation is applicable to any stationary source in the state of Kansas, the construction or alteration of which is commenced after the effective date of this regulation.

B. No owner or operator required to report under Regulation 28-19-8 shall commence construction or alteration without first obtaining approval from the Department.

C. No approval to construct or alter will be granted if it is determinted that the proposed source will prevent the attainment or maintenance of any national ambient air quality standard, or violate the provisions of any applicable emission control regulation.

D. The Department shall respond within 60 days to any report submitted pursuant to Regulation 28-19-8, in writing, of approval, conditional approval, or denial. The reason for denial shall be specified.

E. Approval to construct or alter shall not relieve any owner or operator of the responsibility to comply with all local, state, and Federal regulations.

28-19-15 SEVERABILITY

If any clause, paragraph, subsection or section of these regulations shall be held invalid, it shall be conclusively presumed that the Board would have enacted the remainder of these regulations not directly related to such clause, paragraph, subsection or section.

(28-19-16 through 28-19-19 Reserved for future use)

KANSAS ADMINISTRATIVE REGULATIONS
for
New Source Permit Requirements
(November 12, 1980)

*28-19-16. New source permit requirements for designated nonattainment areas. The provisions of K.A.R. 28-19-16 through K.A.R. 28-19-16m shall apply to the construction, reconstruction or modification of major stationary sources of air pollution emissions located within any area that has been identified as not meeting a national ambient air quality standard for the pollutant for which the source is major, under the procedures prescribed by Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407(d)). (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

*These temporary regulations have become permanent. See non-regulatory section
Federal Register publication date - July 7, 1981

28-19-16a. Definitions. The following words and terms, when used in K.A.R. 28-19-16 through K.A.R. 28-19-16m, shall have the following meanings:

(a) "Actual emissions" means, in regard to determining creditable previous emissions, the actual average rate of emissions of a pollutant, in tons per year, at which a unit actually emitted the pollutant during a two-year period which precedes the particular date of interest and which is representative of normal source operation, unless the department allows the use of a different time period upon a determination that it is more representative of normal source operation. Such emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period. Where specific emission limitations have been established for an individual source under the provisions of K.A.R. 28-19-13, K.A.R. 28-19-16b or any permits issued under the provisions of federal regulation 40 CFR 52.21(i), as amended August 7, 1980, then actual emissions may be presumed to be equal to such limitations. For any emissions unit which has not begun normal operations on a date of interest, actual emissions shall mean the potential to emit of the unit on that date.

(b) "Allowable emissions" means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation or both) and limitations imposed by this or any other applicable state, federal or local governmental air pollution control regulation, including those with a future compliance date.

(c) "Begin actual construction" means the initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operation this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

(d) "Building, structure or facility" means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same two-digit code) as described in the "Standard Industrial Classification Manual 1972," as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).

(e) "Commence, as applied to construction of a major stationary source or major modification", means that the owner or operator has all necessary state, local and federal approvals or permits and either has begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

(f) "Construction" means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.

(g) "Contemporaneous emission increase or decrease" means emission changes from the source which have occurred between a date five (5) years before construction on a particular change commences, or changes in operation are initiated, and the date that the change becomes operational.

(h) "Creditable emission decrease" means the amount by which the old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions. No emission decrease shall be creditable if the secretary has previously given credit for it in a permit issued under the provisions of this regulation that is presently in effect or the decrease has been previously credited by the secretary as a result of actions initiated under the provisions of other state, federal, or local governmental air pollution control regulations. Credit shall be allowed only for decreases in emissions which have approximately the same qualitative significance for public health and welfare as do those emissions that increase as a result of a particular change.

(i) "Creditable emission increase" means the amount by which a new level of actual emissions exceeds the old level of actual emissions.

(j) "Emissions unit" means any part of a stationary source which emits or would have the potential to emit any pollutant subject to the provisions of this regulation.

(k) "Federally enforceable" means all limitations and conditions which are enforceable by the Administrator of the U.S. Environmental Protection Agency, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements of regulations included in the federally approved Kansas implementation plan and any permit requirements established pursuant to these requirements.

(l) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(m) "Fugitive emissions" means those emissions which directly result from operation of a stationary source but which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(n) "Implementation plan" means any documents, including state or locally adopted regulations, submitted by a state to the U.S. Environmental Protection Agency as required by the provisions of Section 110 of the federal Clean Air Act (42 U.S.C. 7410) and any regulations promulgated by the administrator of the U.S. Environmental Protection Agency pursuant to the provisions of that section. For the purpose of this regulation a state plan shall be considered to be approved when the administrator has published the approval or conditional approval of the applicable provisions of the plan in the Federal Register.

(o) "Installation" means an identifiable piece of process equipment.

(p) "Lowest achievable emission rate" means, for any source, an emission standard established by the secretary based on either the most stringent emissions limitation which is contained in the approved implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable, or the most stringent emissions limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event will the secretary establish a lower emission rate for a proposed new or modified stationary source which is less stringent than the amount allowable under an applicable new source standard of performance promulgated by the U.S. Environmental Protection Agency under the provisions of Section 111 of the federal Clean Air Act.

(q) "Major modification" means any modification of a major stationary source that would result in a significant net emissions increase of any pollutant subject to the provisions of this regulation.

(r) "Modification" means any physical change in, or change in the method of operation of, a stationary source that would result in an emissions increase of any pollutant subject to the provisions of this regulation. Any net emissions increase that is considered significant for volatile organic compounds shall be considered significant for ozone. A physical change or change in the method of operation shall not include:

(1) Routine maintenance, repair and replacement;

(2) Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(3) Use of an alternative fuel by reason of an order or rule under section 125 of the federal Clean Air Act;

(4) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(5) Use of an alternative fuel or raw material by a stationary source which:

(A) The source was capable of accommodating before December 21, 1976, unless the secretary determines that such change would be prohibited under any federally enforceable permit condition which was established after December 21, 1976 pursuant to 40 CFR 51.21 or under regulations approved pursuant to 40 CFR 51.18 or 40 CFR 51.24; or

(B) The source is approved to use under any permit issued under the provisions of this regulation;

(6) An increase in the hours of operation or in the production rate, unless the secretary determines that such change is prohibited under any federally enforceable permit condition which was established after December 21, 1976 pursuant to 40 CFR 52.21 or regulations approved pursuant to 40 CFR 51.18 or 40 CFR 51.24; or

(7) Any change in ownership at a stationary source.

(s) "Major stationary source" means any stationary source of air pollutants which emits, or has the potential to emit, one hundred (100) tons per year or more of any pollutant subject to the provisions of this regulation, or any physical change that would occur at a stationary source not qualifying as a major stationary source under the previous definition, if the change would constitute a major stationary source by itself. A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

(t) "Net emissions increase" means the amount by which the sum of any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source and any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change, and are otherwise creditable, exceeds zero.

(u) "Potential to emit" means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

(v) "Reconstruction" means those modifications where the fixed capital cost of the new components exceeds fifty (50) percent of the fixed capital cost of a comparable entirely new stationary source. Any final decision as to whether reconstruction has occurred shall be made in accordance with the provision of federal regulation 40 CFR 60.15(f) (1)-(3), dated May 29, 1980. A reconstructed stationary source will be treated as a new stationary source for purposes of this regulation. In determining lowest achievable emission rate for a reconstructed stationary source the provisions of 40 CFR 60.15(f)(4) dated May 29, 1980 shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.

(w) "Secondary emissions" means emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but would not be from the major stationary source or major modification itself.

(x) "Significant" means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

(1) Carbon monoxide: 100 tons per year

(2) Nitrogen oxides: 40 tons per year

(3) Sulfur dioxide: 40 tons per year

(4) Particulate matter: 25 tons per year

(5) Ozone: 40 tons per year of volatile organic compounds

(6) Lead: 0.6 tons per year

(y) "Significantly contribute" means, in reference to exceeding a national ambient air quality standard, a predicted air pollution concentration exceeding any of the following values in any location as determined by utilizing procedures specified in the "Guidelines on Air Quality Models" (QAQPS. 1.2-080, U.S. Environmental Protection Agency, April 1978):

(1) Carbon monoxide: 575 $\mu g/m^3$, 8-hour average.

(2) Nitrogen dioxide: 14 $\mu g/m^3$, annual average.

(3) Total suspended particulate: 10 $\mu g/m^3$, 24-hour average.

(4) Sulfur dioxide: 13 $\mu g/m^3$, 24-hour average.

(5) Lead: 0.1 $\mu g/m^3$, 24-hour average.

(6) Ozone: No concentration specified. Any source of volatile organic compounds permitted under this regulation shall be presumed to have a significant impact throughout the designated ozone nonattainment area and any contiguous ozone nonattainment areas.

(z) "Stationary source" means any building, structure, facility or installation which emits or may emit any air pollutant subject to the provisions of this regulation. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16b. Permit required. (a) A major stationary source shall not begin actual construction, reconstruction or modification unless the owner or operator of the source has been issued a permit approving such activity in accordance with the provisions of this regulation. Such permit shall be signed by the secretary or an authorized representative of the secretary and shall specify the emission rate limitations allowable for the source and any special conditions to be imposed on its operation pursuant to assuring compliance with such limitations and other provisions of this regulation. Special operating conditions may include, but need not be limited to, specified periods of operation, restrictions on the amount and types of material to be combusted, stored or processed, control equipment operating and maintenance requirements, emissions monitoring requirements, and restrictions on other source operations.

(b) Application for a permit required by this regulation shall be submitted on forms provided by the secretary or his or her designated representative. The application shall include, in addition to that information required by K.A.R. 28-19-8(c), such information as is required by the secretary in order to determine the net emissions increase that will occur at the time that the permitted activity is completed. The secretary shall review all actions reported under the provisions of K.A.R. 28-19-8 to determine the possible applicability of this regulation to any such proposed action and advise the source owner or operator, within fifteen (15) days of receipt of such report, of any need to submit a permit application pursuant to the provisions of this regulation. Within thirty (30) days from the receipt of any such permit application, or any addition to such application, the secretary or a designated representative shall advise the applicant of any deficiency in the application or in the information submitted. In the event of such a deficiency, the date of receipt of a completed application shall be, for the purpose of this regulation, the date on which the department of health and environment or its designated representative received all required information. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16c. Creditable emission reductions. For the purpose of allowing credit for emissions reductions claimed in relation to the modification or reconstruction of a major stationary source issued a permit under the provisions of K.A.R. 28-19-16b., the following additional requirements shall apply:

(a) If an existing fuel combustion source commits to switch to a fuel that emits less pollutants at some future date, emissions offset credit based upon allowable (or actual) emissions for the fuels involved shall not be allowed unless the permit issued under K.A.R. 28-19-16b is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emisemissions reduction should the source switch back to a fuel that emits more pollutants at some later date. Before the offset credits are given for such proposed fuel switches, the secretary shall ensure that adequate long term supplies of the new fuel are available.

(b) Where emission reduction credits are proposed to result from a shutdown of an existing source or permanently curtailing production or operating hours below baseline levels, such reductions shall not be credited unless the work force to be affected by such action has been notified of the proposed shutdown or curtailment. Source shutdowns or curtailments in production occurring before the completed source application is received by the department of health and environment or its designated representative may not be used for the purpose of establishing offset credits unless the applicant has demonstrated that such curtailment or shutdown occurred after August 7, 1977, and the proposed new source construction, reconstruction or modification is a replacement for the shutdown or curtailment that is proposed to be used to offset the emissions from it.

(c) Emissions reduction credit shall not be allowed for replacing one volatile organic compound with another of lesser reactivity, except for those compounds listed in Table 1 of the "Recommended Policy on Control of Volatile Organic Compounds" as published on page 35314 of the July 8, 1977 issue of the Federal Register. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16d. Fugitive emission exemption. The provisions of K.A.R. 28-19-16b shall not apply to a source or modification of a source that would be a major stationary source only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the source or modification, except for the following source categories:

(a) Coal cleaning plants (with thermal dryers);

(b) Kraft pulp mills;

(c) Portland cement plants;

(d) Primary zinc smelters;

(e) Iron and steel mills;

(f) Primary aluminum ore reduction plants;

(g) Primary copper smelters;

(h) Municipal incinerators capable of charging more than two hundred and fifty (250) tons of refuse per day;

(i) Hydrofluoric, sulfuric, or nitric acid plants;

(j) Petroleum refineries;

(k) Lime plants;

(l) Phosphate rock processing plants;

(m) Coke oven batteries;

(n) Sulfur recovery plants;

(o) Carbon black plants (furnace process);

(p) Primary lead smelters;

(q) Fuel conversion plants;

(r) Sintering plants;

(s) Secondary metal production plants;

(t) Chemical process plants;

(u) Fossil-fuel boilers (or combinations thereof) totaling more than two hundred and fifty million (250,000,000) British thermal units per hour heat input;

(v) Petroleum storage and transfer units with a total storage capacity exceeding three hundred thousand (300,000) barrels;

(w) Taconite ore processing plants;

(x) Glass fiber processing plants;

(y) Charcoal production plants;

(z) Fossil fuel-fired steam electric plants of more than two hundred and fifty million (250,000,000) British thermal units per hour heat input; and

(aa) Any other stationary source category which, as of August 7, 1980, was being regulated under Section 111 or 112 of the federal Clean Air Act (42 U.S.C. 7411 and 7412). (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

29-19-16e. Relaxation of existing emission limitations. At such time as any individual source or modification becomes a major source subject to the provisions of K.A.R. 28-19-16b solely by virtue of a relaxation in any enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on the hours of operation, then the requirements of K.A.R. 28-19-16 through 28-19-16m shall become applicable to the source or modification as though construction had not yet commenced on the source or modification. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16f. New source emission limits. A permit for major stationary source construction, reconstruction or major modification shall not be issued under the provisions of K.A.R. 28-19-16b unless the emissions resulting from such permitted activity are limited to the lowest achievable emission rate that has been established for the constructed or modified source. For phased construction projects, the determination of lowest achievable emission rate shall be reviewed by the secretary, and modified as appropriate, at the latest reasonable time prior to commencement of construction of each independent phase of the proposed construction or modification. Final determination of compliance with lowest achievable emission rate requirements shall be made by the secretary. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16g. Reasonable further progress requirement. A permit for major stationary source construction, reconstruction or modification shall not be issued under the provisions of K.A.R. 28-19-16b unless:

(a) the secretary has determined that, by the time the source is to commence operation, total allowable emissions from existing sources in the identified nonattainment area, from new or modified sources which are not major stationary sources and from the proposed source will be sufficiently less than the total emissions from existing sources allowed under the approved Kansas implementation plan, prior to application for such permit, so as to represent reasonable further progress toward attainment of the national ambient air quality standard by the date specified in the plan; or

(b) that the emissions resulting from the proposed new or modified major stationary source will not cause or contribute to emissions levels which exceed the allowance permitted for such pollutant in the area from new or modified major stationary sources in the approved plan. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16h. Compliance of other sources. A permit for major stationary source construction, reconstruction or major modification shall not be issued under the provisions of K.A.R. 28-19-16b unless and until the owner or operator of such source has demonstrated to the secretary that all major stationary sources owned and operated by such person (or by any entity controlling, controlled by, or under common control of such person) in the state of Kansas are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards established by the state. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16i. Operating requirements. A constructed, reconstructed or modified major stationary source subject to the provisions of K.A.R. 28-19-16b shall not be operated, except in compliance with the requirements established by the permit issued for the source. For the purpose of this regulation, any permitted physical change in a source that is intended to serve as a replacement unit, and which requires a shakedown period before it can be expected to operate at maximum efficiency, shall be considered operational only after completion of such a period, provided that such period shall not exceed one hundred and eighty (180) days. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16j. Revocation and suspension of permit. Any permit issued under the provisions of K.A.R. 28-19-16b may be suspended or revoked by the secretary upon his or her findings that the owner or operator of such source has failed to comply with any requirement specified in the permit. (Authorized by K.S.A. 1979 Supp. 65-3005; implementing K.S.A. 1979 Supp. 65-3005; effective November 12, 1980.)

28-19-16k. Notification requirements. A permit shall not be issued, suspended or revoked under the provisions of K.A.R. 28-19-16b or 28-19-16j unless provision has been made for a public hearing on the matter upon the written request of any person affected by such proposed action. Such request shall be made within thirty (30) days of:

(a) publication of notice in a newspaper, having general circulation in the nonattainment area in which the source is, or will be, located, indicating the nature of the proposal and advising the public of the opportunity to either request a hearing or submit written comments directly to the secretary concerning the proposal;

(b) sending a copy of the public notice to the applicant and to state and local officials and agencies having cognizance over the location where the proposed actions will occur or emissions from it could significantly contribute to levels of air pollution in excess of the national ambient air quality standards; and

(c) sending a copy of the public notice to the regional administrator of the U.S. Environmental Protection Agency. (Authorized by K.S.A. 1979 Supp. 65-3005; implementing K.S.A. 1979 Supp. 65-3005; effective November 12, 1980.)

28-19-16l. Failure to construct. Any permit issued for the construction of a major stationary source under the provisions of K.A.R. 28-19-16b shall become void if such construction has not commenced within eighteen (18) months after the applicant's receipt of such permit or if such construction is discontinued for eighteen (18) months or more. The secretary may extend the eighteen (18) month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project, in which case the construction shall be commenced on each phase within eighteen (18) months of the projected and approved commencement date. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

28-19-16m. Compliance with provisions of law required. Any approval of a permit under the provisions of K.A.R. 28-19-16b shall not relieve any source owner or operator of the responsibility to comply fully with any other requirements of state, federal, or local law. (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; implementing K.S.A. 1979 Supp. 65-3005, 65-3008, 65-3010; effective November 12, 1980.)

PROCESSING OPERATION EMISSIONS

28-19-20 PARTICULATE EMISSION LIMITATIONS

Subject to the provisions of Regulations 28-19-9 and 28-19-11:

A. No person shall cause, suffer, allow or permit the emission of particulate from any processing machine, equipment, device or other articles, or combination thereof, excluding indirect heating equipment and incinerators, in excess of the amounts allowed in Table P-1 during any one hour.

B. For the purposes of this regulation the following definitions shall apply:

   (1) Process Weight shall mean the total weight of all materials introduced into a source operation which may constitute, or form, a source of particulate emissions. In the case of direct heating operations solid fuels used shall be included as part of the process weight, but liquid and gaseous fuels and combustion air shall not be included.

   (2) Process Weight Rate shall mean the total process weight introduced into the source operation over a specific time period divided by that time period, in hours. For a cyclical or batch operation, the time period shall be that required to complete one operation or an integral number of cycles, and for continuous or long-run steady-state operations it shall be the total operating period or a typical portion thereof.

   (3) Source Operation shall mean the last operation preceding the emission of particulate matter, which results in the separation of the particulate emissions from the processed materials or the conversion of the processed materials into the particulate emissions, excluding those operations which are an integral part of the functioning of a control device.

Where the nature of any process or operation or design of any equipment is such as to permit more than one interpretation of these definitions, that interpretation which results in the minimum allowable Emission Rate shall apply.

28-19-21 ADDITIONAL EMISSION RESTRICTIONS

Certain particulate emissions may, because of their chemical and/or physical nature, require emissions rates lower than those provided for in Regulation 28-19-20. In such cases the Department shall notify the person responsible for the emission, in writing, of the reasons for special concern regarding the existing or proposed contaminant emission and specify an alternate emission rate which is not to be exceeded. Such notification shall be considered an order is provided for in K.S.A. 1970 Supp. 65-3011 and subject to administrative and legal procedures therein.

28-19-22 SULFUR COMPOUND EMISSIONS

A. No person shall cause or permit the emission of sulfur oxides from any primary non-ferrous smelters to exceed the amounts allowed in Table P-2 during any one hour.

TABLE P-2

Non-Ferrous Smelter Allowable Emissions

Type of Smelter	Sulfur Oxide Emissions (lb/hr)
Zinc Smelters	$0.564X^{0.85}$
Lead Smelters	$0.98X^{0.77}$
Where : X = total sulfur fed to smelter in lb/hr	

B. No person shall cause or permit the emission or combustion of any process gas stream that contains H_2S in concentrations greater than 10 grains per 100 cubic feet of gas without removal of the hydrogen sulfide in excess of this concentration. The provisions of this regulation shall not apply to:

(1) The combustion of such fuels for indirect heating purposes

(2) The combustion of such fuels where the gaseous products of combustion are used as raw materials for other processes

(3) The incineration of such gases having a gross heating value of less than 300 BTU per cubic feet at standard conditions and the fuel used to incinerate such waste gases does not contain sulfur or sulfur compounds in excess of the amount specified by this regulation.

C. Installations and equipment existing on January 1, 1972 shall be exempt from the provisions of this regulation.

28-19-23 HYDROCARBON EMISSIONS - STATIONARY SOURCES

A. No person shall place, store, or hold in any stationary tank, reservoir or other container of more than 40,000 gallons capacity any gasoline or any petroleum distillate having a vapor pressure of 3.0 pounds per square inch, absolute, or greater under actual storage conditions unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient to prevent vapor or gas loss to the atmosphere or is designed, and equipped with one of the following vapor loss control devices:

(1) A floating roof, such as a pontoon type, double-deck type roof or internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the gasoline or petroleum distillate has a vapor pressure of 13.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place.

(2) A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(3) Other equipment of means of equal efficiency for purposes of air pollution control as may be approved by the Department.

B. No person shall emit to the atmosphere any ethylene waste gas stream of more than 50 pounds per day from any ethylene producing plant or other ethylene emission source unless the waste gas is properly burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner or equally effective device as approved by the Director.

C. No person shall emit to the atmosphere any hydrocarbon gas stream, excluding methane, of more than 50 pounds per day from a vapor blow down system unless these gases are burned by smokeless flares or an equally effective control device as approved by the Director.

D. Installations and equipment existing on January 1, 1972 shall be exempt from the provisions of this regulation.

28-19-24 CONTROL OF CARBON MONOXIDE EMISSIONS

A. No person shall cause or permit the emission of carbon monoxide gases generated during the operation of a grey iron cupola unless they are burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner or equivalent device as approved by the Director.

B. No person shall emit carbon monoxide waste gas stream from any catalyst regeneration of a petroleum cracking system, petroleum fluid coker, or other petroleum process into the atmosphere, unless the waste gas stream is burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner or equivalent device as approved by the Director.

C. Installations and equipment existing on January 1, 1972 shall be exempt from the provisions of this regulation.

INDIRECT HEATING EQUIPMENT EMISSIONS

28-19-30 GENERAL PROVISIONS

A. These regulations apply to installations in which fuel is burned for the primary purpose of producing steam, hot water, or hot air or other indirect heating of liquids, gases, or solids and, in the course of doing so, the products of combustion do not come into direct contact with process materials. Fuels include those such as coal, coke, lignite, coke breeze, gas, fuel oil, and wood, but do not include refuse. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

B. The heat content of coal shall be determined according to ASTM method D-271-64 "Laboratory Sampling and Analysis of Coal and Coke" or ASTM method D2015-66 "Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter", their replacements of other recognized method as approved by the Department.

The heat content of oil shall be determined according to ASTM method D-240-64 "Heat of Combustion of Liquid Hydrocarbons by Bomb Calorimeter", or by its replacement, or other recognized method as approved by the Department.

C. For purposes of this regulation the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or stacks. The heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater. The total heat input of all fuel burning units at a plant or on a premise shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

28-19-31 EMISSION LIMITATIONS

Subject to the provisions of Regulations 28-19-9 and 28-19-11:

A. No person shall cause or permit the emission of particulate matter in excess of that specified in Table II-1 of this regulation

TABLE H-1

Emission Limits for Indirect
Heating Equipment

Total Input 10^6 BTU/hr	Allowable* lb/hr/10^6 BTU	Total Input 10^6 BTU/hr	Allowable* lb/hr/10^6 BTU
10 or less	0.60	1,000	0.21
50	0.41	2,000	0.17
100	0.35	5,000	0.14
500	0.24	7,5000	0.13
700	0.22	10,000 or more	0.12

*The allowable emission rate for equipment having intermediate heat input between 10 (10^6)BTU may be determined by the formula:

$$A = \frac{1.026}{I^{.233}}$$

Where: A = the allowable emission rate in lb/hr/10^6 BTU

I = the total heat input in 10^6 BTU/hr

B. No person shall cause or permit visible contaminant emissions from any indirect heating equipment equal to or darker than the following:

(1) Existing Equipment: 40 percent opacity

(2) New Equipment: 20 percent opacity

C. No person responsible for operation of any indirect heating equipment having a heat input of 250 million BTU/hr or greater shall cause or permit the emission of more than 1.5 pounds of sulfur per million BTU of heat input per hour.

D. No person responsible for operation of any gas or oil-fired indirect heating equipment having a heat input of 250 million BTU/hr or greater shall cause or permit the emission of more than 0.30 pounds of Nitrogen Oxides per million BTU of heat input per hour.

E. No person responsible for operation of any coal fired indirect heating equipment having a heat input of 250 million BTU/hr or greater shall cause or permit the emission of more than 0.90 pounds of Nitrogen Oxides (calculated as NO_2) per million BTU of heat input per hour.

28-19-32 EXEMPTIONS - INDIRECT HEATING EQUIPMENT

A. The operator of equipment used for indirect heating in any plant may, at his option and upon approval of the Department, elect to eliminate, for the purpose of determining compliance with the provisions of Regulation 28-19-31 (A) any existing fuel burning units normally scheduled to burn fuels other than natural gas only when natural gas is unavailable provided that air pollution control equipment having a collection efficiency of not less than 80% was installed on such units prior to July 1, 1970. In such cases individual units shall be deemed to comply with the provisions of this regulation provided that it is demonstrated that the average annual particulate emissions from the unit will not exceed the emission limits established in TABLE II-1 for the rated capacity of the unit over the total operating period of that unit during any calendar year, and that average emissions from all fuel burning units on the premise do not exceed the limits for the plant as provided in Regulations 28-19-30 (C) and 28-19-31 (A).

Pursuant to considering such a proposal, the Department shall require each operator to submit, in advance, anticipated operating schedules for all units at the plant for each calendar year. Such schedules are to include anticipated fuel use and related emission estimates establishing compliance with this section, and are to be submitted not later than December 1 of the preceding calendar year. The Department shall also require reports of actual operation and fuel use for all units for the calendar year to be submitted not later than January 31 of the following calendar year. Upon determinations that the allowable emissions under the provisions of this section have been exceeded by more than 10% during any two consecutive calendar years, the Department may elect to disallow this exemption.

B. The operator of equipment used for indirect heating in any plant may, at his option and upon approval of the Department, elect to eliminate for the purpose of determining compliance with the provisions of Regulation 28-19-31 (A) any existing coal burning unit normally anticipated to be operated less than 100 hours during any calendar year provided that such units shall emit no more than 1.2 lbs. of particulate per million BTU per hour of operation and provided that it is demonstrated that the average annual emissions from all fuel burning units on the premise do not exceed the limits for the plant as provided for in Regulations 28-19-30 (C) and 28-19-31 (A).

Pursuant to considering such a proposal, the Department shall require each operator to submit, in advance, anticipated operating schedules for all units at the plant for each calendar year. Such schedules are to include anticipated fuel use and related emission estimates establishing compliance with this section, and are to be submitted not later than December 1 of the preceding calendar year. The Department shall also require reports of actual operation and fuel use for all units for the calendar year to be submitted not later than January 31 of the following calendar year. Upon determinations that the allowable emissions under the provisions of this section have been exceeded by more than 10% during any two consecutive years, the Department may elect to disallow this exemption.

C. Visible contaminant emissions of an opacity exceeding that allowed in Regulation 28-19-31 (B) shall not be considered a violation of that section provided that the person responsible for operation of the indirect heating equipment demonstrates to the satisfaction of the Department that such failure to comply is solely the result of the presence of uncombined water in the plume.

D. Indirect heating equipment which was existing on January 1, 1972 shall be exempt from the provisions of Regulations 28-19-31 (C), 28-19-31 (D) and 28-19-31 (E) except that the provisions of 28-19-31 (C) shall apply to all existing equipment for which the annual emissions of sulfur oxides are determined to be increased by a factor of two (2) or more times the amount of such emissions calculated to be discharged during calendar year 1971 or the first 12 months of operation of any unit placed in operation during that year, provided that equipment which burns fuels other than natural gas less than 2000 hours during any year shall be exempt from the provisions of 28-19-31 (C) during that year.

INCINERATOR EMISSIONS

28-19-40 GENERAL PROVISIONS

A. These regulations shall apply to all incinerators and modified open burning operations except those situated on residential premises containing five (5) or less dwelling units and used exclusively for the disposal of waste originating from normal habitation of said dwellings.

B. The burning capacity of an incinerator shall be the manufacturer's or designer's guaranteed maximum rate or such other rate as may be determined by the Department in accordance with good engineering practice. In case of conflict, the findings of the Department shall govern.

C. No incinerator shall be used for the burning of wastes or the conducting of salvage operations unless such incinerator is a multiple chamber incinerator. For the purpose of this regulation a multiple chamber incinerator is defined as an incinerator consisting of three or more refractory lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

Existing incinerators which are not multiple chamber incinerators may be altered, modified or rebuilt as may be necessary to meet this requirement. The Department may approve any other alteration or modification to an existing incinerator if such is found to be equally effective for the purpose of air pollution control as a modification or alteration which would result in a multiple chamber incinerator.

All new incinerators shall be multiple chamber incinerators, provided that the Department shall approve any other kind of incinerator if it can be shown in advance of construction or installation that such other kind of incinerator is equally effective for purposes of air pollution control as an approved multiple chamber incinerator.

D. Instructions for proper operation of each incinerator, including charging procedures, necessary air intake and damper adjustments, use of auxiliary burners, etc. shall be conspicuously posted, and maintained, at the incinerator location. In addition, all new incinerators, or incinerators remodeled to conform with these regulations shall have a plate designating the rated capacity of the incinerator and any auxiliary burners, permanently affixed to the incinerator.

28-19-41 RESTRICTION OF EMISSIONS

Subject to the provisions of Regulations 28-19-9 and 28-19-11:

A. No person may cause or permit the emission of particulate matter from any chimney stack or vent of any incinerator in excess of the following:

(1) Incinerators with a waste burning capacity of less than 200 pounds per hour: 0.3 grains of particulate matter per standard dry cubic foot of exhaust gas, corrected to twelve percent (12%) carbon dioxide.

(2) Incinerators with a waste burning capacity of 200 to 20,000 pounds of waste per hour: 0.2 grains of particulate matter per standard dry cubic foot of exhaust gas, corrected to twelve percent (12%) carbon dioxide.

(3) Incinerators with a waste burning capacity in excess of 20,000 pounds of waste per hour: 0.1 grains of particulate matter per standard dry cubic foot of exhaust gas, corrected to twelve percent (12%) carbon dioxide.

B. No person may cause or permit the emission of visible contaminants from any incinerator of an opacity equal to or greater than 20 percent opacity.

28-19-42 PERFORMANCE TESTING

A. Waste burned in conjunction with the performance tests specified in this regulation shall be a representative sample of the refuse normally generated by the operation which the incinerator is intended to serve.

B. In calculating the amount of particulate matter in stack gas, the loading shall be adjusted to twelve percent (12%) carbon dioxide in the stack gas. The exhaust gases produced in the burning of the liquid or gaseous fuel in the incinerator shall be excluded from the calculation to twelve percent (12%) carbon dioxide. Emissions shall be measured when the incinerator is operating at the burning capacity as defined in Regulation 28-19-40 (B) of this regulation.

C. A performance test to determine compliance with the Ringelmann requirements specified in Regulation 28-19041 (B) of these regulations shall be performed by the Department on each new incinerator, and each existing incinerator modified or rebuilt to conform with this regulation.

D. The performance test specified in Section B of this regulation may be required on any incinerator. The initial performance test shall be performed at the expense of the vendor or operator by an independent testing organization or by any other qualified person subject to the approval of the Department. The performance test may be observed by the Department of its designated representative.

28-19-43 EXCEPTIONS

A. Visible contaminant emissions of an opacity exceeding that allowed in Regulation 28-19-41 (B) of this regulation shall not be considered a violation of that section provided that the person responsible for operation of the incinerator demonstrates to the satisfaction of the Department that such failure to comply is solely the result of the presence of uncombined water in the plume.

OPEN BURNING

28-19-45 OPEN BURNING PROHIBITED

Subject to the provisions of Regulation 28-19-9, no person shall cause or permit the following on any premise:

A. Open burning of any wastes.

B. Open burning of any item for the purpose of salvaging operations.

C. On-site open burning of structures, vegetation, or other combustible materials.

28-19-46 RESPONSIBILITY DEFINED

It shall be prima facie evidence that the person who owns or controls property on which open burning occurs has caused or permitted said open burning.

28-19-47 EXEMPTIONS - OPEN BURNING

The requirements of Regulation 28-19-45 shall not apply where:

A. Such open burning is carried out on a residential premise containing five (5) or less dwelling units and is carried out incidental to the normal habitation of said dwelling units, the control of such burning being recognized as the responsibility of local governmental units.

B. The building of open fires is for cooking or ceremonial purposes, on public, or private lands regularly used for recreational purposes.

C. Open burning operations are conducted upon approval by the Department when it is demonstrated that such open burning is necessary and in the public interest. Such approval shall be given for a specific period of time and only under such special conditions as the Department may deem necessary to prevent contaminant emissions which are, or tend to be, injurious to human health, animal or plant life, or property, or capable of unreasonably interfering with the enjoyment of life or property. Such approval shall be revocable upon thirty (30) days notice at the Department's option and shall only be given upon receipt of a request to conduct such open burning which contains the following information:

    (1) The name, address and telephone number of the person responsible for the open burning operation.

    (2) The exact location and type of open burning operation involved.

(3) The reason why the proposed operation is in the public interest and no alternative method is feasible.

(4) A description of the open burning operation including the estimated amount and nature of material to be burned each time; the proposed frequency, duration and schedule of such burning; the size of the area to which the burning will be confined; and the method of igniting the material.

(5) A sketch indicating the location of the open burning with respect to all public roadways and dwellings within 1500 feet or less of the proposed operation, and the names and mailing addresses of all heads of households occupying such dwellings.

(6) Evidence that such open burning has been approved by any official fire control authority having jurisdiction over the area.

In considering such requests the Department may consider, but need not restrict consideration to, the following activities as being in the public interest:

(1) The use of safety flares for disposal of flammable gases for which there is no other practical means of disposal.

(2) Fires set for demonstration purposes related to the training of government or industrial personnel in fire fighting procedures.

(3) Agricultural burning for the specific purpose of crop management.

D. Fires set for the removal of dangerous or hazardous liquid materials where there is no other practical or lawful method of disposal, provided that such burning must be controlled so as to avoid any traffic or public hazard and provided that approval is obtained from the Department.

E. On-site open burning operations are carried out for the purpose of burning materials associated with land clearing operations, crop or game management practices, or construction projects carried out on the premises, provided that:

(1) Such burning is not specifically prohibited by the Department of Health, its official designated representatives, or other authorities having local jurisdiction in the matter, where it is demonstrated to be in the best interests of public health and welfare.

(2) Such burning is not carried on on any one parcel of land for a time period aggregating more than five days during any calendar year.

(3) Such burning is carried out in accordance with the following guidelines:

a. Nature of Material to be Burned: The burning of heavy smoke producing materials such as heavy oils, tires, tarpaper, etc. is prohibited. The material to be burned should be stockpiled and dried to the extent possible before it is burned. It is also required to be kept free of excess dirt, or other extraneous matter that will inhibit good combustion.

b. Meteorological Conditions: Burning operations shall not be initiated until at least one hour after sunrise. Addition of material to the fire shall be limited to periods at least two hours prior to sunset. Burning shall not be carried out during inclement or foggy conditions or on very cloudy days. Cloudy days will be defined as overcast days (more than 0.7 cloud cover) with a ceiling of less than 2000 feet.

c. Location: The burning shall be carried out at least 1000 feet from any occupied dwelling or public roadway and at least one mile from any airport.

   Conditions of burning within 1000 feet of a roadway which provide potential traffic safety hazards or any other safety hazards must be avoided by appropriate notifications of the Highway Patrol, Sheriff's office or other appropriate authorities.

d. Firebreaks: The burning of vegetation in providing a firebreak in pasture or other crop management may be allowed where necessary during evening or early morning hours in order to take advantage of calm wind conditions.

e. Safety: Burning shall be supervised until the fire is extinguished and must not be in violation of the requirements of any local fire authority having jurisdiction in the area.

VISIBLE EMISSIONS AND FUGITIVE DUST

28-19-50 OPACITY REQUIREMENTS

Subject to the provisions of Regulations 28-19-9 and 28-19-11, no person shall cause or permit visible contaminant emissions from the processing of any materials or other use of any premise which equal or exceed the following opacities, except as otherwise specified in other emission control regulations:

A. Existing processing of materials or other use of premises: 40 percent opacity.

B. Processing of materials or other use of premises not existing on the effective date of this regulation: 20 percent opacity.

28-19-51 GROUND LEVEL PARTICULATE LIMITATIONS

The provisions of other emission control regulations notwithstanding, no person shall cause or permit the handling, transport or storage of any materials or any other use of a premise in a manner which has been demonstrated to allow sufficient quantities of particulate matter to become airborne to cause a ground level particulate concentration at the property line equal to or exceeding 2.0 milligrams per cubic meter above background concentrations for any time period aggregating more than 10 minutes during any hour.

Compliance with this section shall be determined by the Department by means of collecting air samples from one or more locations both upwind and downwind from the source of emissions at any point on, or beyond, the premise property line. Such sampling may be carried out by means of a portable electrostatic precipitator, or any other sampling procedure established by the Department communsurate with good engineering practice.

28-19-52 EXCEPTIONS

Visible contaminant emissions of an opacity exceeding that allowed in Regulation 28-19-50 shall not be considered in violation of that regulation provided that the person responsible for the processing of materials or other use of the premises demonstrates to the satisfaction of the Department that such failure to comply is solely the result of the presence of uncombined water in the plume.

AIR POLLUTION EMERGENCIES

28-19-55 GENERAL PROVISIONS

A. These episode regulations are designed to prevent the excessive buildup of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the public health. Any other provisions of the air pollution control regulations notwithstanding, they shall apply to all emission sources and premises located in any geographic area for which air pollution emergency status has been established by the Director in accordance with Regulation 28-19-56.

B. For the purposes of this regulation the following definition will apply:

Soiling Index shall be presumed to mean the concentration of particulates as measured by the automatic paper-tape sampler method, "ASTM Standard Method of Test for Particulate Matter in the Atmosphere, Optical Density of Filtered Deposit, D-1704-61" expressed as coefficient of Haze (COH) per 1000 linear feet.

28-19-56 EPISODE CRITERIA

A. Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution energency shall be deemed to exist whenever the Director determines that the accumulation of air contaminants at any sampling location is attaining, or has attained, levels which could, if such levels are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the Director will be guided by the following criteria:

(1) Air Pollution Forecast: The issuance of a Weather Bureau High Pollution Potential Advisory, or equivalent indication by local Weather Bureau Meteorologist that a stagnant atmospheric condition will exist for the next 36 hours.

(2) Air Pollution Alert: The average SO_2 level for the previous 24 consecutive hours equals 0.3 ppm (800μg/m^3) or the average 2 hour soiling index for the previous 24 consecutive hours equals 3 COH/1000 linear feet, or the suspended particulate level for the previous 24 consecutive hours equals 375 μg/m3, or the product of the average soiling index and the SO_2 concentration (ppm) for the previous 24 consecutive hours equals 0.20, or the product of the average suspended particulate and SO_2 concentration (μg/m^3) for the previous 24 consecutive hours equals 65,000, or the average CO level for the previous 8 consecutive hours equals 15 ppm, or the average Ox level for the preceding 1 hour equals 0.1 ppm, or the average NO_2 concentration for the preceding 1 hour equals 0.6 ppm, or the average NO_2 concentration for the preceding 24 consecutive hours equals 0.15 ppm, and the local meteorologist predicts no major changes in existing adverse meteorological conditions for al least an additional twelve (12) hours.

(3) Air Pollution Warning: The average SO_2 level for the previous 24 consecutive hours equals 0.60 ppm, (1600μg/m^3) or the average 2 hours soiling index for the previous 24 consecutive hours equals 5 COH/1000 linear feet, or the suspended particulate level for the previous 24 consecutive hours equals 624μg/m^3, or the product of the average soiling index and SO_2 concentration (ppm) for the previous 24 consecutive hours equals 0.80, or the product of the average suspended particulate and SO_2 concentration (μg/m^3) for the previous 24 consecutive hours equals 261,000 or the average CO level for the previous 8 consecutive hours equals 30 ppm, or the average Ox level for the preceding 1 hour equals 0.4 ppm, or the average NO_2 concentration for the preceding 1 hour equals 1.2 ppm, or the average NO_2 concentration for the preceding 24 consecutive hours equals 0.3 ppm, and the local meteorologist predicts no major changes in existing adverse meteorological conditions for the next twelve (12) hours.

(4) Air Pollution Emergency: The average SO_2 level for the previous 24 consecutive hours equals 0.8 ppm (2100 g/m^3), or the average 2 hours soiling index for the previous 24 consecutive hours equals 7 COH/1000 linear feet, or the suspended particulate level for the previous 24 consecutive hours equals .875 g/m^3, or the product of the average soiling index and the SO_2 concentration (ppm) for the previous 24 consecutive hours equals 1.2, or the product of the average suspended particulate and the SO_2 concentration (g/m^3) for the previous 24 consecutive hours equals 393,000, or the average CO level for the previous 8 consecutive hours equals 40 ppm, or the average Ox level for the preceding 1 hour equals 0.6 ppm, or the average NO_2 concentration for the preceding 1 hour equals 1.6 ppm, or the average NO_2 concentration for the preceding 24 consecutive hours equals 0.4 ppm, and the local meteorologist predicts no major changes in existing adverse meteorological conditions for at least an additional twelve (12) hours.

B. The provisions of 28-19-55 (A) notwithstanding, the Director may declare any status prescribed therein on the basis of deterioration of air quality to the criteria levels alone and without the issuance of a High Air Pollution Potential Advisory or equivalent advisory from a local Weather Bureau Meteorologist; if deemed necessary to protect the public health.

C. Once declared, any status established on the basis of this regulation shall remain in effect until the criteria for that level are no longer met. At such time the next lower status will be assumed.

28-19-57 EMISSION REDUCTION REQUIREMENTS

A. Upon the declaration of any Air Pollution Episode Status by the Director the provisions of Sections B, C and D of this regulation shall be considered as an emergency order of the Board issued in accordance with K.S.A. 65-3012 and subject to the provisions therein.

B. During any time designated as an Air Pollution Alert period no person shall operate any contaminant emission sources except in compliance with the requirements of Table E-1.

C. During any time designated as an Air Pollution Warning period no person shall operate any contaminant emission sources except in compliance with the requirements of Tables E-1 and E-2.

D. During any time designated as an Air Pollution Emergency period no person shall operate any contaminant emission source except in compliance with the requirements of Tables E-1, E-2, and E-3.

Table P-1

Process Weight Table

Maximum Allowable Emission Rate

Process Weight Rate		Rate of Emission	Process Weight Rate		Rate of Emission
lb/hr	tons/hr	lb/hr	lb/hr	tons/hr	lb/hr
100	0.05	0.551	16,000	8.00	16.5
200	0.10	0.877	18,000	9.00	17.9
400	0.20	1.40	20,000	10.	19.2
600	0.30	1.83	30,000	15.	25.2
800	0.40	2.22	40,000	20.	30.5
1,000	0.50	2.58	50,000	25.	35.4
1,500	0.75	3.38	60,000	30.	40.0
2,000	1.00	4.10	70,000	35.	41.3
2,500	1.25	4.76	80,000	40.	42.5
3,000	1.50	5.38	90,000	45.	43.6
3,500	1.75	5.96	100,000	50.	44.6
4,000	2.00	6.52	120,000	60.	46.3
5,000	2.50	7.58	140,000	70.	47.8
6,000	3.00	8.56	160,000	80.	49.0
7,000	3.50	9.49	200,000	100.	51.2
8,000	4.00	10.4	1,000,000	500	69.0
9,000	4.50	11.2	2,000,000	1,000	77.6
10,000	5.00	12.0	6,000,000	3,000	92.7
12,000	6.00	13.6			

Interpolation of the data in Table P-1 for other process weights shall be accomplished by use of the following equations:

Process weights $\leq$ 30 Ton/hr - $E = (4.1)(P^{0.67})$
Process weights $>$ 30 Ton/hr - $E = (55)(P^{0.11}) - 40$

Where: E = rate of emissions in lb/hr
P = process weight in Ton/hr

TABLE E-1

Source Restrictions

Air Pollution Alert Status

Source Category	Action Required
1. All private, public and commercial premises	a. There shall be no open burning except as required for immediate disposal of inflammable or otherwise hazardous gases or liquids. b. The use of incinerators for the disposal of any waste material shall be limited to the hours between 12:00 noon and 4:00 P.M. c. Boiler lancing or soot blowing of fuel burning equipment requiring such operations shall be limited to the hours between 12:00 noon and 4:00 P.M.
2. Coal or oil-fired electric power generators facilities	a. Units shall be operated on natural gas when possible. b. Units shall be operated on the lowest sulfur and ash fuels available. c. Substantial utilization shall be made of power generated outside of the area included in episode status declaration.
3. Other coal and oil-fired process steam generating facilities	a. Units shall be operated on natural gas when possible. b. Units shall be operated on lowest sulfur and ash fuels available. c. Steam loads shall be reduced to extent possible consistent with continuing plant operations.
4. Manufacturing, industries required to submit episode plans in accordance with Regulation 28-19-58	Air contaminants emissions from processing operations shall be substantially reduced by curtailing or postponing production and allied operations to the extent possible without causing economic hardships.

TABLE E-2

Source Restrictions

Air Pollution Warning Status

Source Category	Action Required
1. All private, public and commercial premises	The use of incinerators for the disposal of any waste materials shall be prohibited
2. Coal or oil fired power generating facilities	Maximum utilization shall be made of power generated by facilities outside of the area included in the episode status declarations.
3. Other coal and oil-fired process steam generating facilities	Preparation shall be made to immediately take action required under Emergency Status.
4. Manufacturing industries required to submit episode plans in accordance with Regulation 29-19-58	Air contaminant emissions from processing operations shall be reduced to the maximum degree possible by curtailing and postponing production and altered operations to the extent feasible with, if necessary, the assumption of reasonable economic hardships.
5. Transportation	The use of private and commercial motor vehicles should be limited by deferring unnecessary travel and utilizing car pools or mass transportation facilities where possible.

28-19-58 EMERGENCY EPISODE PLANS

A. Any person responsible for the operation of a source of air contamination adjudged to be of major concern with respect to possible implementation of air pollution emergency episode control procedures either because of the nature or the quantity of its emissions shall, at the request of the Department, prepare an emergency episode plan to be implemented in the event that any episode status is declared by the Director. Such plans shall provide for the reduction of emissions of those contaminants for which episode criteria have been established and, consistent with good industrial practice and safe operating procedures, reflect adherence to the requirements established in Tables E-1, E-2, and E-3 of Regulation 28-19-57.

B. All plans requested under the provisions of 28-19-58 (A) shall be submitted to the Department in written form, within 60 days of receipt of such a request; and shall be subject to review and approval by the Department. Such plans shall indicate the sources of contamination to be controlled or eliminated; the manner in which such action will be accomplished; and the approximate amount of specific contaminant emissions that will be eliminated.

C. The Department after reviewing any plan submitted in accordance with this regulation shall approve or disapprove it on the basis of its consistency with the intent of Regulation 28-19-57. If such a plan is disapproved the Department shall state its reasons for disapproval and specify those changes needed to provide an approvable plan. Such action shall be in writing and considered to be issued under the provisions of K.S.A. 65-3011 and subject to the provisions therein.

D. Those plans which are approved under Section C of this Regulation shall be maintained on the premises to which they apply and shall be implemented during those periods for which an episode status has been established. Implementation of such a plan shall be considered as an emergency order of the Engineer of the Board to immediately reduce or discontinue the emission of contaminants in accordance with K.S.A. 65-3012, and subject to the provisions contained therein.

TABLE E-3

Source Restrictions

Air Pollution Emergency Status

Source Category	Action Required
1. All private, public, and commercial premises	The following places of employment shall immediately cease operations (1) Mining and quarrying operations (2) Construction projects except as required to avoid emergent phycal harm (3) All manufacturing operations except those operating under an approved episode plan (4) Wholesale trade establishment (5) Governmental units, except as required to implement the provisions of these regulations and other operations essential to immediate protection of the public welfare and safety (6) Educational institutions (7) Retail trade and service establishments except pharmacies, food stores and other similar operations providing for emergency needs (8) Other commercial service operations such as those engaged in banking, insurance, real estate, advertising, etc. (9) Amusement and recreational facilities
2. Electric power generating facilities	Same as Table E-2

TABLE E-3

Source Restrictions

Air Pollution Emergency Status (Continued)

Source Category	Action Required
3. Process steam generating facilities	Facilities shall be shut down to the maximum extent possible consistent with preventing extensive equipment damage
4. Manufacturing industries required to submit episode plan in accordance with Regulation 28-19-58	Air contaminant emissions from processing operations shall be reduced to the maximum degree possible by ceasing or drastically curtailing all production and allied operations to the extent feasible with due regard to any immediate likelihood of resultant personal injury or substantial equipment damage
5. Transportation	The use of motor vehicles shall be restricted to meeting private and public emergency needs

KANSAS ADMINISTRATIVE REGULATIONS
for
Control of Volatile Organic Compound Emissions
(September 10, 1980)

Part 9 - VOLATILE ORGANIC COMPOUND EMISSIONS

*28-19-61. Definitions. The following words, terms and abbreviations, when used in this part, shall have the following meanings, unless the context clearly indicates otherwise:

Accumulator means the reservoir of a condensing unit receiving the condensate from the condenser.

Application area means the area where the surface coating is applied by spraying, dipping or flow coating.

ASTM means the American society for testing materials.

Automobile means all passenger cars or passenger car derivatives capable of seating twelve (12) or fewer passengers.

Automobile and light duty truck body means the body section rearward of the windshield and front-end sheet metal forward of the windshield of an automobile or light duty truck.

Automobile and light duty truck part means a metal intended to be attached to an automobile or light duty truck body for inclusion into a finished product for sale to vehicle dealers.

Bottom filling means the filling of a gasoline delivery vessel through an opening that is flush with the tank bottom, or a stationary storage vessel through an opening near the bottom of the tank.

Bulk gasoline terminal means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by delivery vessels, and has an average daily throughput of more than twenty thousand (20,000) gallons of gasoline.

Condenser means any heat transfer device used to liquefy vapors by removing their latent heat of vaporization. Such devices include, but are not limited to, shell and tube, coil, surface, or contact condensers.

Condensate means hydrocarbon liquids which condensed due to changes in the temperature or pressure, or both, and remains as a liquid.

Crude Oil means a naturally occurring mixture which consists of hydrocarbons or any sulfur, nitrogen or oxygen derivatives of hydrocarbons, or any combination of these compounds, and which is liquid at standard conditions.

* These temporary regulations have become permanent. See non-regulatory section Federal Register publication date - July 7, 1981

Custody transfer means the transfer of produced crude oil or condensate, or both, after processing or treating, or both, in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Cutback asphalt means any asphalt cement which has been liquefied by blending with petroleum solvent diluents.

Delivery vessel means a tank truck or trailer equipped with a storage tank having a capacity greater than one thousand (1,000) gallons and used for the transport of gasoline.

Emulsified asphalt means asphalt cement which has been liquefied by blending with water and an emulsifier containing seven percent (7%) or less, by volume, of volatile organic compounds as a diluent as determined by ASTM standard D-244, "Standard methods of testing emulsified asphalts."

External floating roof means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

Final repair means the surface coatings applied to correct topcoat imperfections.

Firebox means the chamber or compartment of a boiler or furnace in which fuels are burned, but does not mean the combustion chamber of an incinerator.

Flash-off area means the structure on an assembly line between an application area and oven where solvents applied with the coating material are evaporated.

Forebay means the primary sections of a wastewater (oil and water) separator.

Gasoline means any petroleum distillate having a Reid vapor pressure of four (4) pounds or greater.

Gasoline dispensing facility means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

Hot well means the reservoir of a condensing unit receiving the warm condensate from the condenser.

Internal floating roof means a cover in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained, and is equipped with a sliding seal or seals to close the space between the edge of the covers and the tank shell.

Light duty trucks means any motor vehicles rated at eight thousand five hundred (8,500) pounds gross weight or less which are designed primarily for purpose of transportation or are derivatives of such vehicles.

Liquid-mounted seal means a primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

Oven means a device which uses heat to dry or cure coatings.

Penetrating prime coat means the application of low viscosity liquid asphalt to an absorbent surface to prepare it for the application of an asphalt cement surface.

Petroleum liquids means crude oil condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

Petroleum refinery means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of crude oils, or through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

Primer coat means the initial coating applied to a surface.

Primer-surfacer means the surface coating applied over the primer coat and beneath the top coat.

Refinery fuel gas means any gas which is generated by a petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

Submerged filling means the filling of an underground storage tank or a delivery vessel tank through a pipe or hose whose discharge opening is within six (6) inches of the tank bottom.

Surface coating applicator means any device or equipment designed for the purpose of applying a protective or decorative coating material to a surface. For the purpose of this regulation, such devices shall include but not be limited to sprayers, flow coaters, dip tanks, rollers, knife coaters, extrusion coaters and gravure devices.

Top coat means the coating applied to a surface for the purpose of establishing color and surface appearance.

Transfer efficiency means the fraction (expressed as a decimal equivalent) of the total applied surface coating solids which remains on the part to which the coating has been applied.

True vapor pressure means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American petroluem institute bulletin 2517, "Evaporation loss from floating roof tanks," 1962. (This information is available upon written request to the department.)

Turnaround means the procedure of shutting a refinery unit down after a run, in order to do necessary maintenance and repair work, and putting the unit back on stream.

Vacuum producing system means any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that takes suction from below atmospheric pressure and discharges against atmospheric pressure.

Vapor balance system means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

Volatile organic compounds (VOC) means any carbon compound having a vapor pressure greater than 0.1 mm of mercury at standard conditions excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. For the purposes of the regulation, methane; ethane; methylene chloride; 1, 1, 1-trichloroethane (methyl chloroform); and trichlorotrifluoroethane (fluorocarbon 113) shall not be considered to be volatile organic compounds.

Volume fraction solids means the arithmetic value determined by dividing the volume of surface coating solids contained in specific volume of surface coating material as used in an applicator by the volume of the surface coating material. The density of the solids and surface coating material shall be determined by ASTM test methods or other procedures determined to be equivalent by the department.

Waste water (oil and water) separator means any device or piece of equipment which utilizes the difference in the density between oil and water to remove oil and associated chemicals from water, or any device, such as a flocculation tank, clarifier, or other similar device, which removes petroleum derived compounds from waste water.

Waxy, heavy pour crudes means any crude oil with a pour point of 30°F or higher as determined by ASTM standard D-97-66, "Test for pour point of petroleum oils," or with a Reid vapor pressure less than 2 pounds per square inch absolute as determined by ASTM standard D-323-56, "Vapor pressure of petroleum products (Reid method)." (Authorized by K.S.A. 1979 Supp. 65-3005, 65-3010; effective September 10, 1980.)

28-19-62. Testing procedures. (a) Unless otherwise noted, sampling and testing procedures required to demonstrate compliance with the volatile organic compound emission limits established by these regulations shall be as described in the following referenced publications:

(1) Surface coating emissions (lb./gal. coating) - appendix A, EPA-450/2-77-008, Control of volatile organic emissions from existing stationary sources - volume II.

(2) Gasoline storage and handling emissions (lb. volatile organic compounds) - appendix A, EPA-450/2-77-026, Control of hydrocarbons from tank truck gasoline loading terminals.

(3) Detection of leaks from petroleum refinery equipment - appendix B, EPA-450/2-78-036, Control of volatile organic compound leaks from petroleum refinery equipment.

(b) Nothwithstanding the provisions of section (a) of this regulation, the department may approve any alternate sampling or testing procedures developed or approved by the federal air pollution control agency as an equivalent or improved procedure.

(c) Any and all of the information listed in section (a) of this regulation will be provided upon written request to the department. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-63. Automobile and light duty truck surface coating. (a) No person shall cause, allow, or permit the emission to the atmosphere of any volatile organic compounds from any automobile or light duty truck surface coating operations in excess of the amounts allowed in Table 1 after the dates prescribed therein.

Table 1
Surface Coating Emission Limits

Surface Coat Application	Emission Limit lb/gal coating (minus water)*	Compliance Date
Body Primer Coat	1.2	12-31-82
Body Primer-surfacer Coat	3.0	12-31-82
	2.8	12-31-87
Body Top Coat	5.8	07-01-80
	5.0	12-31-81
	2.8	12-31-87
Body Final Repair Coat	6.5	07-01-80
	4.8	12-31-87
Miscellaneous Metal Parts	3.5	07-01-82

*For spray application of coating materials compliance with the limits shall be based upon arithmetic average volatile organic compound content of all coating materials used in each surface coating operation. For other types of coating operations the limits shall be based upon the weighted average volatile organic compound content of all make up materials added to the applicator during period determined to be representative of average operating conditions for the applicator.

(b) The limits prescribed in this regulation shall apply to application areas, flashoff areas and ovens used in the surface coating operation.

(c) Alternative compliance with the limits established in Table 1 of this regulation can be achieved through a method or methods using:

(1) low solvent coating;

(2) paint application transfer efficiency improvement;

(3) process changes;

(4) abatement control measures; or

(5) any combination of (1) through (5) which results in emissions in pounds of volatile organic compounds to the atmosphere, as calculated by the same formula when using the emission limit specified in Table 1 and the respective transfer efficiencies determined by the department to be appropriate for the surface coating applications specified in Table 1:

$$\frac{\text{lbs. of VOC}}{\text{gal. solids applied}} = \frac{EL\ (1-E)}{(VS)(TE)}$$

where:

EL = emission limit from Table 1
VS = volume fraction solids, decimal equivalent
TE = transfer efficiency, decimal equivalent
E = effeciency of abatement control measures, decimal equivalent.

(d) Compliance with the provisions of this regulation may be established by the implementation of a plant-wide emissions control plan which utilizes a daily weighted average of emissions from a combination of affected surface coating operations, provided that:

(1) All operations involved in the plan are subject to the emission limits prescribed in section (a),

(2) All operations are carried out in the same surface coating plant,

(3) The total average volatile organic compound emissions for each twenty-four (24) hour period do not exceed the sum of the allowable emissions for each operation during the same period, and

(4) The equivalent emission reductions are accomplished in accordance with the compliance dates specified.

(e) Within six (6) months after the effective date of this regulation, a program and schedule for achieving compliance with the emission limits and compliance dates specified in section (a) shall be submitted to the Department for approval.

(f) The provisions of this regulation shall be applicable only to automobile and light duty truck surface coating operations carried out at automobile or light truck assembly plants which are located in areas that have been identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407) and have a cumulative potential contaminant emission rate equal to or greater than one hundred (100) tons of volatile organic compounds per year for all emission sources subject to the provisions of this part. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-64. Bulk gasoline terminals. (a) No person shall load gasoline into any delivery vessel from any bulk gasoline terminal unless the bulk gasoline terminal is equipped with a vapor control system, properly installed and in good working order.

(b) The following requirements shall apply to bulk gasoline terminals and the appurtenant equipment necessary to load the delivery vessel:

(1) The vapor control system shall not allow the mass emissions of volatile organic compounds from control equipment to exceed sixty-seven hundredths (.67) pounds per one thousand (1,000) gallons of gasoline loaded.

(2) Loading shall be accomplished in such a manner that the vapors and gases are vented to the vapor control system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use and to assure complete drainage of liquids before the loading device is disconnected. Loading and vapor lines shall be equipped with fittings which make vapor tight connections.

(c) The owner or operator of a source required to install a vapor control system in order to comply with this regulation shall:

(1) Within sixteen (16) weeks of the effective date of this regulation submit a control plan to the department providing for final compliance with this regulation as expeditiously as practicable but not later than the date prescribed by subsection (c)(5) of this regulation.

(2) Award contracts or purchase orders for the vapor control system within twenty-four (24) weeks of the effective date of this regulation.

(3) Initiate on site construction or installation of the vapor control system within forty-eight (48) weeks of the effective date of this regulation.

(4) Complete construction or installation of the vapor control system within one hundred (100) weeks of the effective date of this regulation.

(5) Demonstrate final compliance with this regulation within two (2) years of the effective date of this regulation.

(d) The provisions of this regulation shall be applicable only to bulk gasoline terminals which are located in areas that have been identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407) and have a cumulative potential contaminant emission rate equal to or greater than one hundred (100) tons of volatile organic compounds per year for all emission sources subject to the provisions of this part. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-65. Petroleum liquid storage tanks. (a) No person shall place, store, or hold in any stationary tank, reservoir, or other container capable of holding more than forty thousand (40,000) gallons of any petroleum liquid having a true vapor pressure of one and five tenths (1.5) pounds per square inch, absolute, or greater under actual storage conditions unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient to prevent vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices:

(1) A floating roof, such as a pontoon type, double deck type roof or internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and the tank wall. This control equipment shall not be permitted if the petroleum liquid has a vapor pressure of eleven and one tenth (11.1) pounds per square inch, absolute, or greater under actual storage conditions. All tank gauging or sampling devices shall be gas tight except when tank gauging or sampling is taking place.

(2) A properly installed and maintained vapor control system. Such a vapor control system shall consist of a vapor gathering system capable of collecting the volatile organic compound vapors so as to prevent their emission to the atmosphere except through an approved control device. All tank gauging and sampling devices shall be gas tight except when gauging or sampling is taking place. An approvable volatile organic compound vapor control device shall be designed to reduce the maximum concentration of volatile organic compound in gases emitted to the atmosphere to seven (7) pounds of volatile organic compounds per one thousand (1,000) cubic feet of vented gas.

(3) Other equipment or means of equal efficiency for purposes of air pollution control as may be approved by the department.

(b) This regulation shall not apply to volatile petroleum liquid storage vessels used to store produced crude oil and condensate prior to lease custody transfer having a storage capacity of 420,000 gallons or less.

(c) The owner or operator of a source subject to the provisions of this regulation shall:

(1) Within sixteen (16) weeks of the effective date of this regulation submit a control plan to the department providing for final compliance with this regulation as expeditiously as practicable but not later than the date prescribed by subsection (d)(5) of this regulation.

(2) Award contracts or purchase orders for emission control equipment necessary to comply with the provisions of the regulation within twenty-four (24) weeks of the effective date of this regulation.

(3) Initiate construction or installation of the required emission control equipment within forty-eight (48) weeks of the effective date of this regulation.

(4) Complete the construction or installation of the required emission control equipment within one hundred (100) weeks of the effective date of this regulation.

(5) Demonstrate compliance with this regulation within two (2) years of the effective date of this regulation.

(d) The provisions of this regulation shall be applicable only to petroleum liquid storage tanks operated at facilities subject to the provisions of K.A.R. 1980 Supp. 28-19-64, 28-19-67 and 28-19-68. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-66. Petroleum Liquid Storage in External Floating Roof Tanks. (a) No person shall place, store, or hold in any stationary tank, reservoir, or other container capable of holding more than forty thousand (40,000) gallons of any petroleum liquid which has been equipped with an external floating roof using a metallic-type shoe seal, a liquid-mounted liquid-filled seal, a liquid-mounted foam seal, or any other closure device which has been demonstrated to be equivalent unless such tank, reservoir, or container has a continuous, rim-mounted secondary seal extending from the floating roof to the tank wall, if: (1) The tank is a welded tank, and the true vapor pressure of the contained liquid is four (4.0) pounds per square inch or greater,

(2) The tank is a riveted tank, and the true vapor pressure of the contained liquid is one and five tenths (1.5) pounds per square inch or greater, or

(3) The tank is a welded tank, the true vapor pressure of the contained liquid is one and five tenths (1.5) pounds per square inch or greater, and the tank has a floating roof with a vapor-mounted closure device.

(b) All seal closure devices shall meet the following requirements: (1) There shall be no visible holes, tears, or other openings in the seal fabric.

(2) The seal(s) shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(3) When a vapor-mounted seal is demonstrated to be an equivalent primary closure device, the accumulated area of openings exceeding one-eighth (1/8) inch in width between the secondary seal and the tank wall shall not exceed one (1.0) square inch per foot of tank diameter.

(c) All openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves, shall provide a projection below the liquid surface. The openings shall be equipped with a cover, seal or lid. The cover, seal or lid shall be in a closed position at all times except when the device is in actual use. Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and rim vents shall be set to open when the roof is being floated off the roof leg supports, or at the manufacturer's recommended setting. Any emergency roof drain shall be provided with a slotted membrane fabric cover or equivalent cover that covers at least ninety (90) percent of the area of the opening.

(d) The following are specifically exempted from the requirement of this regulation: (1) External floating roof tanks having capacities less than ten thousand (10,000) barrels used to store produced crude oil and condensate prior to custody transfer.

(2) A metallic-type shoe seal in a welded tank which has a secondary seal from the top of the shoe seal to the tank wall.

(3) External floating roof tanks storing waxy, heavy pour crudes.

(4) External floating roof tanks with other closures or devices of equal efficiency for purposes of air pollution control as may be approved by the department.

(e) The owner or operator of a source subject to the provisions of this regulation shall: (1) Within sixteen (16) weeks of the effective date of this regulation submit a control plan to the department providing for final compliance with this regulation as expeditiously as practicable but not later than the date prescribed by subsection (e)(5) of this regulation.

(2) Award contracts or purchase orders for emission control equipment necessary to comply with the provisions of the regulation within twenty-four (24) weeks of the effective date of this regulation.

(3) Initiate construction or installation of the required emission control equipment within forty-eight (48) weeks of the effective date of this regulation.

(4) Complete the construction or installation of the required emission control equipment within one hundred (100) weeks of the effective date of this regulation.

(5) Demonstrate compliance with this regulation within two (2) years of the effective date of this regulation.

(f) The provisions of this regulation shall be applicable only to petroleum liquid storage tanks operated at facilities subject to the provisions of K.A.R 1980 Supp. 28-19-64, 28-19-67 and 28-19-68. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-67. Petroleum refineries. (a) No person shall permit the use of any vacuum producing system at a petroleum refinery unless the vapor emissions from the condensers, hot wells or accumulators of any such system are reduced by:

(1) Piping the noncondensible vapors to a firebox or incinerator,

(2) Compressing the vapors and adding them to the refinery fuel gas, or

(3) Other equipment or means of equal efficiency for purposes of air pollution control as may be approved by the department.

(b) No person shall permit the use of any waste water (oil and water) separator at a petroleum refinery unless covers and seals approved by the department have been provided on all separators and forebays, and all openings in covers, separators and forebays have been equipped with lids or seals such that the lids or seals are in the closed position at all times except when in actual use.

(c) No person shall perform a process unit turnaround at a petroleum refinery unless they have developed and submitted to the department a detailed procedure for minimization of volatile organic compound emissions during process unit turnarounds and have obtained the approval of the department for the procedure. As a minimum, the procedure shall provide for:

(1) Depressurization venting of the process unit or vessel to a fuel gas system, vapor recovery system, flare or firebox, or any other equipment or means of equal efficiency for purposes of air pollution control as may be approved by the department,

(2) No emission of volatile organic compounds from a process unit or vessel until its internal pressure is nineteen and seven tenths (19.7) pounds per square inch, absolute, or less, and

(3) Submission to the department, within thirty (30) days of placing the process unit on stream after a turnaround, the following information:

(A) The dates of the process unit shutdown and startup.

(B) The approximate total quantity of volatile organic compounds emitted to the atmosphere.

(d) The owner or operator of any source subject to the provisions of subsections (a) and (b) of this regulation shall:

(1) Within sixteen (16) weeks of the effective date of this regulation submit a control plan providing for compliance with the provisions as expeditiously as practicable but not later than the date prescribed by subsection (e)(5) of this regulation.

(2) Award contracts or purchase orders necessary to comply with the provisions within twenty-four (24) weeks of the effective date of this regulation.

(3) Initiate on site construction or installation activities required to comply with the provisions within forty-eight (48) weeks of the effective of this regulation.

(4) Complete the construction or installation of equipment necessary to comply with the provisions within one hundred (100) weeks of the effective date of this regulation.

(5) Demonstrate final compliance with the provisions within two (2) years of the effective date of this regulation except that final compliance shall be demonstrated within one (1) year of the effective date of this regulation where such compliance does not require the purchase, relocation or construction of equipment items other than piping.

(e) The owner or operator of a source subject to the provisions of subsection (c) of this regulation shall develop and submit the required procedures to the department within six (6) months of the effective date of this regulation and shall implement such procedures within three (3) months of the date of their approval by the department.

(f) The provisions of this regulation shall be applicable only to the use of vacuum producing systems and wastewater separators and turnaround operations at petroleum refineries which are located in areas that have been identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407) and have a cumulative potential contaminant emission rate equal to or greater than one hundred (100) tons of volatile organic compounds per year for all emission sources subject to the provisions of this part. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-68. Leaks from petroleum refinery equipment. (a) If the volatile organic compound concentration leaking from pump seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open ended pipes exceeds ten thousand (10,000) parts per million, the leak shall be repaired within fifteen (15) days.

(b) Any leaks which cannot be repaired during the required fifteen (15) day period shall be reported to the department, in writing, within the fifteen (15) day period. The report shall state the source of the leak, the reasons why the repairs cannot be made during the period, and the earliest date by which the repairs can be accomplished.

(c) The monitoring of volatile organic compound leaks shall be performed by the refinery according to the following schedule: (1) Weekly - visual inspection shall be made of pump seals to detect leaks. Whenever liquid leaks are observed, the volatile organic compound concentration shall be monitored immediately.

(2) Quarterly - compressor seals, pipeline valves in gas service, and atmospheric vented pressure relief valves in gas service.

(3) Annually - pump seals, pipeline valves in liquid service, and process drains.

(d) The monitoring for the detection of volatile organic compound leaks required by section (c) shall be conducted in accordance with the provisions of K.A.R. 1980 Supp. 28-19-62.

(e) A written monitoring plan providing for compliance with the provisions of section (c) shall be submitted to the department by the owner or operator of any source subject to its provisions within one (1) year of the effective date of this regulation. The plan shall contain, at a minimum, a list of the refinery units to be monitored, the calendar quarter during which they will be monitored, a copy of the leak survey log format that will be used, and the make and model of the monitoring equipment that will be used.

(f) The ends of all pipes and lines which normally contain volatile organic compounds and which terminate with a valve fitting other than a pressure relief valve shall be sealed with a second valve, a blind flange, a plug, or a cap. Such seals shall be removed only when the line must be opened for the collection of samples or other purposes.

(g) The provisions of this regulation shall be applicable only to pump seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains and open ended pipes in use at petroleum refineries which are located in areas that have been identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407) and have a cumulative potential contaminant emission rate equal to or greater than one hundred (100) tons of volatile organic compounds per year for all emission sources subject to the provisions of this part. (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

28-19-69. Cutback asphalt. (a) No person shall cause, allow or permit the use or application of cutback asphalt for the purposes of paving after December 31, 1982, without the approval of the department. Emulsified asphalt is an acceptable substitute for cutback asphalt.

(b) The department may approve the use or application of cutback asphalts where:

(1) Long-life stockpile storage is necessary,

(2) The use or application is carried out during the period from October 1 to April 1, when low temperatures usually occur, or

(3) The cutback asphalt is to be used solely as a penetrating prime coat.

(c) The provisions of this regulation shall be applicable only to the use or application of cutback asphalt within areas that have been identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of Section 107(d) of the federal Clean Air Act (42 U.S.C. 7407) . (Authorized by K.S.A. 1979 Supp. 65-3005 and 65-3010; effective September 10, 1980.)

Chapter 2A

AIR POLLUTION*

Sec. 2A-1. Jurisdiction.

Pursuant to the provisions of K.S.A. 1971 Supp. 65-3016, and Resolution No. 19088 of the Kansas City, Kansas Board of City Commissioners, jurisdiction for the abatement of air pollution is hereby conferred upon the Kansas City, Kansas-Wyandotte County Joint Board of Health. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-2. Purpose.

It is the purpose of these air pollution control regulations to preserve and enhance the quality of the air in Kansas City-Wyandotte County so as to protect human health and safety, prevent injury to animal life and property and foster the comfort and convenience of the citizens of Kansas City-Wyandotte County through the prevention and control of air pollution emissions. This shall be achieved by promulgation and enforcement of emission standards and control regulations requiring that air pollution sources provide the highest degree of controls attainable through the application of the maximum control technology available as has been commercially demonstrated prior to the time of installation. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-3. Definitions.

As used in this chapter, the following words and phrases shall be defined as hereinafter set out:

Air pollution. Shall mean the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as is, or tends significantly to be,

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***Editor's note**—Section 2 of Ord. No. 52677, enacted Feb. 28, 1974, repealed former Ch. 2A, pertaining to air pollution, derived from Ord. No. 50297, § 1, adopted Jan. 13, 1972. Section 1 of said Ord. No. 52677 enacted a new Ch. 2A as herein set out.

injurious to human health or welfare, animal or plant life, property, or would unreasonably interfere with the enjoyment of life or property.

Alter. Shall mean to make or effect any physical change in, or change in the method of operation of, any machine, equipment, device, or other article, or combination thereof which constitutes a source of pollutant emissions subject to the provisions of these regulations, and which increases the amount of such emissions.

Approvable air curtain open pit destructor. Shall mean a device specifically approved by the director as being consistent with engineering and design requirements established by him and used to accomplish the controlled high temperature minimum emission burning of land clearing debris (trees, brush and vegetation only). Such device shall consist of a large blower or fan, designed to deliver at least eight hundred (800) standard cubic feet per minute of air for each foot of length of the pit in which the burning is accomplished and a nozzle equipped plenum chamber designed to deliver air at a minimum air velocity of one hundred fifty (150) feet per second in a flat sheet or curtain of air blowing diagonally downward across the pit. The pit used to accomplish the burning with the air curtain destructor must be the exact length of the manifold plenum chamber, eight (8) feet or less across in the direction of airflow perpendicular to the manifold plenum chamber, twelve (12) feet or deeper (consistent with local soil conditions) and have all four (4) sides vertical. New pits conforming to these requirements shall be excavated as necessary to replace pits in which the high temperature operation has resulted in crumbling or erosion of the burning pit such that the pit no longer has the required four (4) smooth vertical walls and/or is no longer consistent with the dimension requirements provided herein. The director may also require any additional design and/or operating conditions for the air curtain open pit destructor as are necessary in his judgment to accomplish minimum emission, smoke-free, burning of the land clearing debris.

Board or joint board. Shall mean the joint board of health of Wyandotte County, Kansas, Kansas City, Kansas, or its officers or employees designated to administer air pollution regulations or ordinances.

Contaminant. Shall mean dust, fumes, smoke or other particulate, vapor, gas, odorous substance or any combination thereof, but not including uncombined water vapor or steam condensate.

Control device. Shall mean any equipment, device or other article designed and/or installed for the purpose of reducing or preventing the discharge of contaminant emissions to the air.

Direct heating equipment. Shall mean any device where fuel is burned in direct contact with, and for purpose of heating, air which comes in direct contact with the material being processed.

Director. Shall mean the director of the air pollution control division of the Kansas City, Kansas-Wyandotte County Health Department or his authorized representative.

Emission source. Shall mean any machine, equipment, device or other article or operation that directly, or indirectly, releases contaminants into the outdoor atmosphere.

Existing. Shall mean equipment, machines, devices, articles, contrivances or installations which are in being at a stated time except that any such existing equipment, machine, device, article, contrivance or installation which is altered shall be reclassified as "new," as defined in this chapter. Any existing equipment, machines, devices, articles or installations which are moved to a new physical location shall also be classified as "new" as defined in this chapter.

Incinerator. Shall mean any device or structure used for the destruction, or volume reduction, of garbage, rubbish, or other liquid or solid waste materials by combustion pursuant to disposal or salvaging operations.

Indirect heating equipment. Shall mean any device where fuel is burned to produce usable heat by transfer through a heat conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to, the products of combustion.

Malfunction. Shall mean any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Multiple chamber incinerator. Shall mean any article, machine, equipment, contrivance, structure or part of a structure, used to dispose of combustible refuse by burning, consisting of three (3) or more refractory lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned. The refractories shall have a pyrometric cone equivalent of 31, tested according to the method described in the American Society for Testing Materials, Method C-24.

New. Shall mean equipment, machines, devices, articles, contrivances or installations built or installed or altered or moved to a new physical location outside the original premises on or after a stated time.

Nonresidential waste. Shall mean solid, liquid, or gaseous material or combination thereof resulting from the construction or the prosecution of any business, industry, trade or agricultural operation or from the conduct of a salvage operation, refuse collection and/or refuse disposal operation, or any demolition operation. Nonresidential waste shall include but not be limited to plastics, wood, cartons, rubber, grease, oils, asphaltic materials, chemicals, land clearing debris, weeds, trees, grass, brush, logs, limbs, other vegetation, tires, and cinders. Nonresidential waste shall include all refuse and waste excepting exlusively household waste generated and disposed of at the residential site where generated during the normal habitation of exclusively residential premises containing five (5) or less dwelling units. Waste generated from residential premises containing more than five (5) dwelling units shall be classified as nonresidential waste. Waste generated from residential premises and disposed of at a location other than at the site where generated shall also be classified as nonresidential waste.

Official observer. Shall mean a designated representative of the board who has been certified by the board as qualified on the basis of actual testing to determine the degree of opacity of visible plumes by direct visual observation. The board shall develop and make public necessary requirements for official observers based upon actual testing of the ability of the official observer to accurately determine the opacity of visible plumes. Official observers shall be required to be retested at least once every six (6) months in order to maintain their certification.

Opacity. Shall mean the degree to which an observer's view of transmitted light is obscured by passing through a contaminant emission, with zero (0) per cent opacity being equivalent to perfect transparency and one hundred (100) per cent opacity being perfectly opaque.

Open burning. Shall mean the burning of any materials wherein contaminants resulting from such combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. For the purposes of this definition, a chamber shall be considered enclosed when during the combustion process only such apertures, ducts, stacks, flues or chimneys as are required to supply combustion air to permit the escape of exhaust gases are open. Burning in a barrel, drum or similar container shall be considered open burning for purposes of these regulations.

Particulate matter. Shall mean any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

Person. Shall mean any individual, firm, public or private corporation, association, business trust, company, partnership, contractor, supplier, installer, user, operator or owner, or any political subdivision or employee thereof.

Potential contaminant emission factor. Shall mean an average value of the amount of contaminants that have been found to be associated with a specific type of processing or burning operation as compared to a given quantity of material processed or some other meaningful parameter. For the purpose of these regulations such factors shall be those which have been recognized by the director on the basis of information published by the federal air pollution control agency or otherwise recognized by official air pollution control agencies.

Potential contaminant emission rate. Shall mean the total weight at which a contaminant is or, in the absence of control equipment, would be emitted from an air contaminant source when such source is operating at its maximum capacity. For the purposes of these regulations, it may be determined by:

(a) Sampling in a flue or duct prior to the inlet of any control device serving the flue or duct,

(b) Estimating such emissions by performing a "material balance" calculation (difference between processing input weight and output weight of materials),

(c) Using potential contaminant emission factors as recognized by the director or by any other estimating technique mutually agreeable to the director and the person responsible for operation of the source.

Premise or premises. Shall mean any parcel of land including any structures or equipment thereon under one ownership.

Processing. Shall mean any operation related to the handling, storage, treatment and/or conversion of input materials to produce a salable or usable end product.

Process weight. Shall mean the total weight of all materials introduced into a source operation, including solid fuels but excluding liquids and gases used solely as fuels, and excluding air introduced for purposes of combustion.

Refuse. Shall mean any combustible solid or liquid waste material resulting from industrial, residential, commercial and/or agricultural operations or processes.

Ringelmann Chart. Shall mean the United States Bureau of Mines Information Circular 7718, or such other means of measurement which would give comparable results or results of greater accuracy, as specified by the board.

Salvage operation. Shall mean any business, trade, industry or other activity conducted in whole or in part for the purpose of salvaging or reclaiming any product or material such as metals or chemicals.

Smoke. Shall mean small gas-borne particles resulting from combustion, consisting of carbon, ash, and other material.

Source operation. Shall mean the last operation preceding the emission of an air contaminant, which operation:

(a) Results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants, as in the case of combustion fuel; and

(b) Is not an air pollution abatement operation.

Standard conditions. Shall mean a gas temperature of twenty-five (25) degrees centigrade and a gas pressure of seven hundred sixty (760) millimeters of mercury absolute.

Vehicle. Any self-propelled, nonstationary device moving over public or private property on wheels, tracks, rollers, rails or air, whether or not licensed as a motor vehicle. Motorized construction equipment and railroad engines are specifically included within this definition. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-4. Powers of the board.

In addition to those powers vested in it by state statute, the board shall, pursuant to the delegation of power set forth in section 2A-1, have the following powers:

(1) Adopt and promulgate rules and regulations consistent with the intent and purpose of this chapter, specifically including regulation of the installation,

regulation and operation of any new equipment or processes capable of becoming a source of air pollution.

(2) Hold hearings upon complaints, time for compliance schedules, variances, or their renewal, revocation or modification. In connection therewith, the board may issue subpoenas requiring the attendance of witnesses, the production of evidence relating to the subject of such hearing.

(3) Enter such orders as may be necessary to effectuate the purpose of this chapter.

(4) Conduct any studies, investigations and research necessary to effectuate the purpose of this chapter.

(5) Collect and make available information to interested parties, subject only to section 2A-12 hereof.

(6) Advise, consult and cooperate with all governmental agencies and private groups. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-5. Facts and circumstances pertinent to orders of joint board.

In making its orders and determinations hereunder, the joint board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the standards involved, including, but not limited to:

(1) The character and degree of injury to, or interference with, the protection of the health, general welfare, and the physical property of the people.

(2) The social and economic value of the air pollution source.

(3) The suitability or unsuitability of the air pollution source to the area in which it is located, including the question of priority of location in the area involved.

(4) The technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from such air pollution source. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-6. Right of entry for inspection.

The joint board or its duly appointed representatives may enter at any reasonable time in or upon any private or public property, premises or place for the purpose of investigating either an actual or possible source of air pollution or of ascertaining the state of compliance with these regulations. No person shall refuse entry or access to any authorized representative of the joint board or director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection. If requested, the owner or operator of the premises shall receive a report setting forth levels of emissions and any other facts found which relate to compliance status. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-7. Time for compliance schedule.

(A) Any person oprating an existing installation which installation is in violation of this chapter shall, within a time period specified by the director and not to exceed sixty (60) days, file with the director a time for compliance schedule. Such time for compliance schedule (also referred to herein as time schedule for compliance) shall contain the following information:

(1) All information as required by the director to estimate the existing level of air contaminant emission.

(2) The expected time for compliance and the intended method of compliance. The schedule shall include each of the following:

  (a) Date engineering will be completed.

  (b) Date by which contracts for an emission control system or process modifications will be awarded, or orders will be issued for the purchase of component parts needed to accomplish emission control or process modifications.

  (c) Date by which on-site construction or installation of emission control equipment or process change will be initiated.

(d) Date by which on-site construction or installation of emission control equipment or process modification will be completed.

(e) Date by which source will be brought into final compliance.

The time for compliance schedule shall also include any such other information as the director may require. Information provided in such schedule shall be subject to the requirements of section 2A-12. For good cause shown, the director may allow additional time, not to exceed sixty (60) days, in which to file the schedule. Any time for compliance schedule filed and approved by the director prior to the effective date of this chapter shall continue in effect, subject to the requirements hereof.

(B) The time schedule for compliance provisions of this chapter shall not apply to open burning operations. All open burning operations shall immediately be in compliance with the requirements of this chapter.

(C) All new installations or altered installations or installations which have commenced operations in a new physical location outside the original premises shall be in compliance with all applicable emission control regulations as of going into operation any time after the effective dates of the applicable emission control regulations. Provided, however, such installations may, at the request of the operator and under conditions approved by the director, be operated for such specified time periods as are required to make necessary adjustments on the equipment before compliance must be demonstrated.

(D) Review. The director shall require that written progress reports be submitted by every person having submitted approved time for compliance schedules at least every ninety (90) days, to determine compliance with the approved schedule. Such reports shall contain the following information:

(1) Details of all progress made up to the time of the report.

(2) A comparison of actual progress made with progress schedule in the time for compliance schedule.

(3) An explanation of any instance where actual progress is not consistent with progress detailed in the time for compliance schedule, and such other information as the director may require.

(E) Schedules, reports; failure to submit.

(1) If any person fails or refuses to provide information or submit a time schedule for compliance or progress report as required herein, or in the determination of the director has unreasonably delayed implementation of a submitted time for compliance schedule, the director shall notify the board thereof, and the board shall schedule a public hearing thereon. The person charged shall be given not less than five (5) days actual notice of the date, place and time of the hearing.

(2) After a hearing on the merits, the board shall make such orders as may be necessary to obtain compliance with the requirements of this chapter at the earliest time reasonably possible.

(3) The board shall apply to the district court of Wyandotte County, Kansas, if necessary, to obtain compliance with any such order.

(4) The board is authorized to appoint a hearing officer who shall be empowered to conduct hearings and take evidence and testimony and report the same to the whole board for its consideration and decision.

(F) Failure to meet time schedules. Failure to meet time schedules approved in accordance with subsection (A) of this regulation shall constitute a violation of these regulations unless a request to amend the time schedule is received by the director at least thirty (30) days before the end of any specified period approved for a particular activity. Such a request to amend the time schedule for compliance shall contain the same type of information as required for the initial time for compliance schedule submission as well as such other information as the director may require to substantiate the need for such an extension.

(G) Submission and approval of a time schedule for compliance with these local regulations pursuant to this section shall not be construed to authorize any air pollution source to operate in violation of any State of Kansas or any federal air pollution control regulations or requirements. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-8. Variance.

(a) *Application.* Any person in violation of this chapter, after first meeting the requirements of section 2A-7, may apply to the board for a variance from the requirements of section 2A-7, may apply to the board for a variance from the requirements of this chapter. All applications shall be filed with the director and shall contain such information as the director may require. Any information supplied by applicant within the provisions of section 2A-12 shall be received by the board in closed session.

(b) *Hearing.* After the application is filed and public hearing notices are provided in accordance with section 2A-15(1), the board or its hearing officer(s) shall hold a public hearing upon the application. The applicant shall be given not less than fifteen (15) days actual notice of the date, place and time of the hearing. All testimony, witnesses and evidence relevant to the granting or denial of the application shall be heard, whether adduced by applicant, the director or the public.

(c) *Grounds.* The sole grounds for any application for a variance, or for the granting, refusal, modification or revocation thereof, shall be:

(1) Overwhelming economic necessity.

(2) Technological infeasibility.

(d) *Conditions.* The board, in its discretion, may grant a variance upon such conditions as all evidence and testimony shall warrant. No variance shall be granted for more than one year. No variance shall authorize the creation or maintenance of a nuisance or any danger to public health or safety. No variance granted by the joint board shall be construed to authorize any air pollution source to operate in violation of any State of Kansas or any federal air pollution control regulations or requirements. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-9. Circumvention of chapter or regulations.

No person shall cause or permit the installation or use of any device of any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate any provisions of this chapter. This regulation shall not apply when the only violation involved is violation of a regulation based on concentration or presence of one or more air contaminants at locations beyond the premises on which a source or sources are located. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-10. Air pollution nuisances prohibited; additional emission restrictions; interference with the enjoyment of life and property.

(a) No person shall cause or permit the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause or have a tendency to cause injury or damage to business or property.

(b) Nothing in any other regulation concerning emission of air contaminants or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of a nuisance as described in this section.

(c) Certain particulate emissions may, because of their chemical and/or physical nature, require emission rates lower than those provided for in section 2A-17. In such cases the director shall notify the person responsible for the publishing analyses or summaries relating to the general condition of the outdoor atmosphere or to the character of emissions, both type and quantity, of individual air contaminant sources, and a comparison of such individual source emissions with that allowed by specific emission control regulations. Nothing herein shall be construed to prevent disclosure to federal or state representatives any records or information necessary for the purpose of administration of any federal or state air pollution control laws. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-13. Registration and permit system; exemptions.

(a) Registration of all existing sources. Each person responsible for the emission of existing and proposed air contaminants shall register with the joint board and shall provide, on registration forms provided by the joint board, any information regarding such emission as may be required. Additional information as may be required by the director shall also be provided. Each person so registering with the joint board shall maintain such registration in current status by notifying the joint board of any significant change in any item of information furnished in compliance herewith.

(b) No building permit shall be issued until proof of the registration of all sources of emission of air contaminants is received from the joint board. All sources in subsection (c) of this section are exempt from this requirement.

(c) The following sources are exempt from the registration requirement:

(1) The installation or alternation of an air contaminant detector, air contaminant recorder, combustion controller or combustion controller or combusion shutoff.

(2) Air conditioning or ventilating systems not designed to remove air contaminant generated by or released from equipment.

(3) Fuel burning equipment, other than smoke house generators, which: Uses only gas as a fuel for space

heating, air conditioning or heating water; or is used in a private dwelling or has B.T.U. input of not more than three hundred fifty thousand (350,000) B.T.U. per hour; or is used for space heating, other than boilers and hot air furnaces.

(4) Internal combustion engines.

(5) Laboratory equipment used exclusively for chemical or physical analyses.

(6) Other sources of minor significance specified by director. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-14. Review of new or altered sources.

(a) This regulation is applicable to any stationary source the construction or alteration of which is commenced after the effective date of this regulation.

(b) No owner or operator required to register under section 2A-13 shall commence construction or alteration without first obtaining approval from the joint board.

(c) No approval to construct or alter will be granted if it is determined that the proposed source will prevent the attainment or maintenance of any national ambient air quality standard, or violates the provisions of any applicable emission control regulation.

(d) The director shall respond within sixty (60) days to any registration or report submitted pursuant to section 2A-13, in writing, of approval, conditional approval, or denial. The reason for denial shall be specified.

(e) Approval to construct or alter shall not relieve any owner or operator of the responsibility to comply with all local, state, and federal regulations. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-15. Public hearings.

(1) No public hearing shall be held pursuant to this chapter or any section of this chapter unless the joint board shall give due public notice thereof by publication in a

newspaper or newspapers having general circulation within the area or areas affected by the matter which is the subject of the hearing.

(2) Hearings shall be conducted by the joint board or hearing officer or officers appointed by the board. At any such hearing, the board or its hearing officer(s) shall have the power to administer oaths, examine and cross examine witnesses, receive oral and documentary evidence, and shall have the power to subpoena witnesses, compel their attendance, and require the production of any books, papers, records, correspondence and other documents relevant to the inquiry, and may cause the deposition of witnesses, concerning matters relating to air quality control, to be taken in the manner prescribed by law for taking depositions and civil actions in the district courts. In case of a refusal of any person to comply with any subpoena issued hereunder, or testify to any matters concerning which he may be lawfully interrogated, the district court of Wyandotte County, on application of the director, may issue an order requiring such person to comply with such subpoena; and any failure to obey any such order of the court may be punished by the court as contempt thereof.

(3) Nothing in this section shall be construed to require a hearing prior to the issuance of an emergency order pursuant to the emergency action sections of this chapter. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-16. Installations in which fuel is burned.

Sec. 2A-16(1). General provisions.

(a) These regulations apply to installations in which fuel is burned for the primary purpose of producing steam, hot water, or hot air or other indirect heating of liquids, gases, or solids and, in the course of doing so, the products of combustion do not come into direct contact with process materials. Fuels include those such as coal, coke, lignite, coke breeze, gas, fuel oil, and wood, but do not include refuse. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

(b) The heat content of coal shall be determined according to ASTM method D-271-64 "Laboratory Sampling and Analysis of Coal and Coke" or ASTM method D-2015-66 "Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter," their replacements or other recognized method as approved by the joint board.

The heat content of oil shall be determined according to ASTM method D-240-64 "Heat of Combustion of Liquid Hydro-Carbons by Bomb Calorimeter," or by its replacement, or other recognized method as approved by the joint board.

(c) For purposes of this regulation the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or stacks. The heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater. The total heat input of all fuel burning units at a plant or on a premise shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

Sec. 2A-16(2). Emission limitations.

(a) Subject to the provisions of sections 2A-7 and 2A-20 no person shall cause or permit the emission of particulate matter in excess of that specified in Table H-1 of this regulation.

TABLE H-1

Emission Limits for Indirect Heating Equipment

Total Input 10^6 *Btu/hr*	*Allowable** *lb/hr/*10^6 *BTU*	*Total Input* 10^6 *BTU/hr*	*Allowable** *lb/hr/*10^6 *BTU*
10 or less	0.60	1,000	0.21
50	0.41	2,000	0.17
100	0.35	5,000	0.14
500	0.24	7,500	0.13
700	0.22	10,000 or more	0.12

*The allowable emission rate for equipment having intermediate heat input between 10 (10^6) BTU and 10,000 (10^6) BTU may be determined by the formula:

$$A = \frac{1.026}{I^{.233}}$$ (A equals 1.026 divided by I to the .233 power)

Where: A = the allowable emission rate in lb/hr/10^6 BTU

I = the total heat input in 10^6 BTU/hr

(b) No person shall cause or permit the emission from any indirect heating equipment of visible air contaminants which equal or exceed the following:

(1) Equipment in operation prior to February, 1967: Forty (40) per cent opacity.

(2) Equipment in operation on or after February, 1967: Twenty (20) per cent opacity.

(3) All indirect heating equipment shall also be subject to any more stringent opacity requirements established in section 2A-19.

(c) No person responsible for operation of any indirect heating equipment having a heat input of 250 million BTU/hr. or greater shall cause or permit the emission of more than 1.5 pounds of sulfur per million BTU of heat input per hour.

(d) No person responsible for operation of any gas or oil-fired indirect heating equipment having a heat input of 250 million BTU/hr. or greater shall cause or permit the emission of more than 0.30 pounds of nitrogen oxides per million BTU of heat input per hour.

(e) No person responsible for operation of any coal-fired indirect heating equipment having a heat input of 250 million BTU/hr. or greater shall cause or permit the emission of more than 0.90 pounds of nitrogen oxides (calculated as NO_2) per million BTU of heat input per hour.

Sec. 2A-16(3). Exemptions.

(a) The oprator of equipment used for indirect heating in any plant may, at his option and upon approval of the joint board elect to eliminate, for the purpose of determining compliance with provisions of emission limitation (a) any existing fuel burning units normally scheduled to burn fuels other than natural gas only when natural gas is unavailable provided that air pollution control equipment having a collection efficiency of not less than eighty (80) per cent was installed on such units prior to February 1, 1967. In such cases individual units shall be deemed to comply with the provisions of this regulation provided that it is demonstrated that the average annual particulate emissions from the unit will not exceed the emission limits established in Table H-1 for the rated capacity of the unit over the total operating period of that unit during any calendar year, and that average emissions from all fuel burning units on the premise do not exceed the limits for the plant as provided in subsection 2A-16(1) "General provisions" and subsection 2A-16(2) "Emission limitations."

Pursuant to considering such a proposal, the joint board shall require each operator to submit, in advance, anticipated operating schedules for all units at the plant for each calendar year. Such schedules are to include anticipated fuel use and related emission estimates establishing compliance with this section, and are to be submitted not later than December 1 of the preceding calendar year. The joint board shall also require reports of actual operation and fuel use for all units for the calendar year to be submitted not later than January 31 of the following calendar year. Upon determinations that the allowable emissions under the provisions of this section have been exceeded by more than ten (10) per cent during any two (2) consecutive calendar years, the joint board may elect to disallow this exemption.

(b) The operator of equipment used for indirect heating in any plant may, at his option and upon approval of the joint board, elect to eliminate for the purpose of determining compliance with the provisions of subsection 2A-16(2)(a) any existing coal burning unit normally anticipated to be operated less than one hundred (100) hours during any calendar year, provided that such units shall emit no more than 1.2 pounds of particulate per million BTU per hour of operation and provided that it is demonstrated that the average annual emissions from all fuel burning units on the premise do not exceed the limits for the plant as provided for in subsection 2A-16(1) "General provisions," (c), and subsection 2A-16(2) "Emission limitations," (a).

Pursuant to considering such a proposal, the joint board shall require each operator to submit, in advance, anticipated operating schedules for all units at the plant for each calendar year. Such schedules are to include anticipated fuel use and related emission estimates establishing compliance with this section, and are to be submitted not later than December 1 of the preceding calendar year. The joint board shall also require reports of actual operation and fuel use for all units for the calendar year to be submitted not later than January 31 of the following calendar year. Upon determinations that the allowable emissions under the provisions of this section have been exceeded by more than ten (10) per cent during any two (2) consecutive years, the joint board may elect to disallow this exemption.

(c) Visible contaminant emissions of an opacity exceeding that allowed in "Emission limitations" (subsection 2A-16(2)(b)) shall not be considered a violation of that section provided that the person responsible for operation of the indirect heating equipment demonstrates to the satisfaction of the joint board that such failure to comply is solely the result of the presence of uncombined water in the plume.

(d) Indirect heating equipment placed in operation before January 1, 1972, shall be exempt from the provisions of subsections 2A-16(2)(c), 2A-16(2)(d), 2A-16(2)(e) except that all equipment placed in operation on or before January 1, 1972, for which the annual emissions of sulfur oxides are determined to be increased by a factor of two (2) or more times the amount of such emissions calculated to be discharged during calendar year 1971 or the first twelve (12) months of operation for units placed in operation during calendar year 1971 shall also be required to comply with subsection 2A-16(2)(c), provided that equipment which burns fuels other than natural gas less than two thousand (2,000) hours during any year shall also be exempt from the provisions of subsection 2A-16(2)(c) during that year.

Sec. 2A-16(4). Exceptions due to breakdowns or scheduled maintenance. Those exceptions set forth in section 2A-20 shall also apply to this section. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-17. Restriction of emission of particulate matter from industrial processes.

Sec. 2A-17(1). General provisions.

(a) This section applies to any operation, process, or activity except the burning of fuel for indirect heating in which the products of combustion do not come into direct contact with process materials and except the burning of refuse and except the processing of salvageable material by burning.

(b) "Process weight per hour" is the total weight of all materials introduced into any specific process which process may cause any discharge of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclical or batch operation, the process weight per hour will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For continuous operation, the process weight per hour will be derived by dividing the process weight for a typical period of time.

Sec. 2A-17(2). Emission limitations. No person shall cause, suffer, allow, or permit the emission of particulate matter in any one hour from any source in excess of the amount shown in the table hereinafter set forth, for the process weight allocated to such source.

TABLE

Process Weight Rate		*Rate of Emission*	*Process Weight Rate*		*Rate of Emission*
Lb/Hr	*Tons/Hr*	*Lb/Hr*	*Lb/Hr*	*Tons/Hr*	*Lb/Hr*
100	0.05	0.551	16,000	8.	16.5
200	0.10	0.877	18,000	9.	17.9
400	0.20	1.40	20,000	10.	19.2
600	0.30	1.83	30,000	15.	25.2
800	0.40	2.22	40,000	20.	30.5
1,000	0.50	2.58	50,000	25.	35.4
1,500	0.75	3.38	60,000	30.	40.0
2,000	1.00	4.10	70,000	35.	41.3
2,500	1.25	4.76	80,000	40.	42.5
3,000	1.50	5.38	90,000	45.	43.6
3,500	1.75	5.96	100,000	50.	44.6
4,000	2.00	6.52	120,000	60.	46.3
5,000	2.50	7.58	140,000	70.	47.8
6,000	3.00	8.56	160,000	80.	49.0
7,000	3.50	9.49	200,000	100.	51.2
8,000	4.00	10.4	1,000,000	500.	69.3
9,000	4.50	11.2	2,000,000	1000.	77.6
10,000	5.00	12.0	6,000,000	3000.	92.7
12,000	6.00	13.6			

Interpolation of the data in this table or process weight rates up to 60,000 lb/hr shall be accomplished by use of the equation $E = 4.10\ P^{0.67}$ (E equals 4.10 multiplied by P to the 0.67 power) and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr shall be accomplished by use of the equation: $E = 55.0\ P^{0.11} - 40$ (E equals 55.0 multiplied by P to the 0.11 power quantity minus 40) where E = rate of emission in lb/hr and P = process weight rate in tons/hr.

Where the nature of any process or operation or design of any equipment is such as to permit more than one interpretation of these definitions, that interpretation which results in the minimum allowable emission rate shall apply.

Sec. 2A-17(3). Handling of process raw materials, process intermediates, process and products and/or process wastes, process by-products or residues.

(a) It shall be the responsibility of the process owner or operator to handle and/or treat process raw materials, process intermediates, process end products and/or process wastes, process by-products or residues (including but not limited to metallurgical slag, dross and spent fluxes and animal offal) in such a manner to eliminate smoldering, fuming, smoking, emission of odors or other forms of emissions.

(b) The director shall require that the process owner or operator take such measures as are necessary to eliminate or prevent such smoldering, fuming, smoking, emission of odors or other forms of emissions. The director shall specifically require that such process raw materials, process intermediates, process end products and/or process wastes, process by-products or residues (including but not limited to metallurgical slag, dross and spent fluxes and animal offal) be kept in covered containers or treated or handled in such fasnion as the director deems necessary. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-18. Open burning restrictions.

(A) *Prohibition of slavage operations by open burning.* No person shall conduct or cause or permit the conduct of a salvage operation by open burning.

(B) *Restrictions on open burning of nonresidential wastes.*

(1) No person shall cause or permit the disposal of nonresidential wastes by open burning, except as provided in subsection (b)(2) of this section.

(2) The open burning of nonresidential wastes may be permitted when it can be shown by a person that such open burning is absolutely necessary and in the public interest. Any person intending to engage in open burning of nonresidential wastes shall file a request to do so with the joint board. The application shall state the following:

(a) The name, address, and telephone number of the person submitting the application.

(b) The type of business or activity involved. A description of the proposed equipment and operating practices, the type, quantity, and composition of nonresidential wastes to be burned, and the expected composition and amount of air contaminants to be released to the atmosphere.

(c) The schedule of burning operations.

(d) The exact location where open burning will be used to dispose of nonresidential waste.

(e) Reasons why no method other than open burning can be used for disposal of nonresidential waste.

(f) Evidence that the proposed open burning has been approved by any fire department which may have jurisdiction. Upon approval of the application by the joint board, the person may proceed with the operation without being in violation of subsection (b)(1) providing that the person conducting the burning fully complies with all conditions and operating restrictions imposed by the joint board as a part of such permit. The joint board may revoke such permit at any time for cause.

(g) Permit applications for the burning of land clearing debris—including trees, brush and vegetation only—shall normally be considered as being necessary and in the public interest providing that an approvable air curtain open pit destructor of suitable design and capacity is used to accomplish the burning and further providing that such device is installed, maintained and operated at maximum efficiency. Each such application, however, shall be considered individually upon its merits and the joint board may decide that other factors require that such permit application be denied.

(3) The director may establish such conditions and/or burning or operating requirements in permitting the burning of nonresidential waste as are necessary, in the judgment of the director, to minimize the air pollution emitted by such burning or to protect the health and safety of the public.

(4) Permits for the burning of nonresidential waste may be revoked by the director, for cause, at any time.

(C) *Responsibility defined.* It shall be prima facie evidence that the person who owns or controls property on which open burning occurs has caused or permitted said open burning. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-19. Opacity requirements.

Sec. 2A-19(1). Opacity requirements. Subject to the provisions of sections 2A-7 and 2A-20 no person shall cause or permit from the processing of any materials, or other use of any premises, the emission of visible air contaminants which equal or exceed the following except as otherwise specifically permitted in other emission control regulations:

(a) Existing processing of materials or other use of premises: Forty (40) per cent opacity.

(b) Processing of materials or other use of premises not existing on February 1, 1967, and all incinerators and all installations commencing operations in a new physical location after the effective date of this regulation: Twenty (20) per cent opacity.

(c) From any source, new or existing, of visible emission after June 1, 1974: Twenty (20) per cent opacity. Except that indirect heating units in operation prior to

February 1967 when operating under approved exemptions as provided for in section 2A-16(3)(a) and 2A-16(3)(b) shall only be required to meet the emission limitations specified in section 2A-19(1)(a).

Sec. 2A-19(2). Time for compliance with subsection 2A-19(1).

(a) All sources not presently in compliance with subsection 2A-19(1)(a) and (b) shall immediately file an acceptable time for compliance schedule with the joint board.

(b) All sources not presently in compliance with subsection 2A-19(1)(c) shall file an acceptable time for compliance schedule with the joint board by January 1, 1972. Highest priority to meeting the requirements of subsection 2A-19(1)(c) shall be given to sources cited during the Federal Kansas City, Kansas—Kansas City, Missouri Interstate Abatement Action. The director may, for good cause shown, allow until no later than December 31, 1974, for full compliance with subsection 2A-19(1)(c) if, in his determination, it is not reasonably possible for the source to comply with this requirement by the June 1, 1974, deadline. In cases where a changeover to alternative fuels and/or control methods is necessary because of national or local fuel shortages or fuel unavailability, the director may allow until no later than June 1, 1975, for full compliance with subsection 2A-19(1)(c) if, in the director's judgment, such time extension is absolutely necessary and in the public interest.

(c) All sources not presently in compliance with section 2A-16(1)(a) and (b) shall be deemed in violation of this regulation and subject to penalties prescribed unless a time for compliance schedule has been received and accepted by the joint board.

(d) All sources not in compliance with subsection 2A-19(1)(c) on or after January 1, 1972, shall be deemed in violation of this regulation and subject to all penalties prescribed unless a time for compliance schedule, providing for full compliance with subsection 2A-19(1)(c), has been received and accepted by the joint board.

Sec. 2A-19(3). Visible emissions from motor vehicles and stationary internal combustion engines.

(a) No person shall cause or permit the emission of visible air contaminants which equal or exceed twenty (20) per cent opacity from a gasoline-powered motor vehicle or stationary gasoline-powered internal combustion engine for longer than five (5) consecutive seconds.

(b) No person shall cause or permit the emission of visible air contaminants which equal or exceed thirty (30) per cent opacity from a diesel-powered motor vehicle or diesel-powered stationary internal combustion engine for longer than five (5) consecutive seconds. At no time may the emission of visible air contaminants from diesel-powered motor vehicles be of an opacity equal to or exceeding fifty (50) per cent opacity.

Sec. 2A-19(4). Opacity contribution of uncombined water not included. Visible contaminant emissions of an opacity exceeding that allowed in subsection 2A-19(1) shall not be considered in violation of that section provided that the person responsible for the processing of materials or other use of the premises demonstrates to the satisfaction of the joint board that such failure to comply is solely the result of the presence of uncombined water in the plume. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-20. Exceptions due to breakdowns or scheduled maintenance.

(a) Abnormal operating conditions resulting from malfunction, breakdown or necessary repairs to control of processing equipment and appurtenances which cause emissions in excess of the limitations specified in the emission control regulations shall not be deemed violations provided that:

(1) The person responsible for the operation of the emission source notifies the joint board of the occurrence and nature of such malfunction, breakdown or repairs, in writing, within seven (7) calendar days of its noted occurrence.

(2) The number of occurrences of such breakdowns is not deemed excessive by the joint board and appropriate reasonable action is taken to initiate and complete any necessary repairs and place the equipment back in operation as quickly as possible.

(b) Emissions in excess of the limitations specified in these emission control regulations resulting from scheduled maintenance of control equipment and appurtenances will be permitted only on the basis of prior approval by the joint board and upon demonstration that such maintenance cannot be accomplished by maximum reasonable effort, including off-shift labor where required, during periods of shutdown of any related equipment.

(c) Excessive contaminant emissions from fuel burning equipment used for indirect heating purposes resulting from fuel or load changes, start up, soot blowing, cleaning of fires, and rapping of precipitators will not be deemed violations provided that they do not exceed a period or periods aggregating more than five (5) minutes during any consecutive one hour period. Provided, however, that where the operator of such equipment can demonstrate to the satisfaction of the joint board that any such specific operational procedures will require that the allowable time period for excessive emissions be extended beyond five (5) minutes during any one hour the joint board may authorize, upon request of the operator, an adjusted time schedule for permitting such excessive emissions. Such authorization shall require that visible emissions not exceed a sixty (60) per cent opacity; and shall specify an appropriate time and daily frequency schedule for such excessive emissions.

(d) At all times, including periods of start-up, shut-down, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-21. Preventing particulate matter from becoming air-borne.

(a) No person shall cause or permit the handling or transporting or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become air-borne to premises other than the premises on which any contributing air contaminant source is located.

(b) No person shall cause or permit a building or its appurtenances or a road, or a driveway, or an open area to be constructed, used, repaired or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming air-borne. The joint board may require such reasonable measures as may be necessary to prevent particulate matter from becoming air-borne including but not limited to paving or frequent cleaning of roads, driveways and parking lots; application of dust-free surfaces; application of water; and the planting and maintenance of vegetative ground cover.

(c) The provisions of other emission control regulations, notwithstanding, no person shall cause or permit the handling, transport or storage of any materials or any other use of a premise in a manner which has been demonstrated to allow sufficient quantities of particulate matter to become air-borne to cause a ground level particulate concentration at the property line equal to or exceeding 2.0 milligrams per cubic meter above background concentrations for any time period aggregating more than ten (10) minutes during any hour.

(d) Compliance with this section shall be determined by the director by means of collecting air samples from one or more locations both upwind and downwind from the source of emissions at any point on, or beyond, the premise property line. Such sampling may be carried out by means of a portable high volume sampler equipped with a four (4) inch diameter filter, a portable electrostatic precipitator, or any other sampling procedure established by the department commensurate with good engineering practice. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-22. Measurement of emissions.

(a) The joint board may require any person responsible for the operation of an emission source to make or have tests made to determine the rate of contaminant emissions from the source whenever it has reason to believe on the basis of estimates of potential contaminant emission rates from the source and due consideration to probable efficiency of any existing control device, or visible emissions determinations made by an official observer, that existing emissions exceed the limitations specified in these control regulations. Such tests may also be required pursuant to verifying that any newly installed control device meets performance specifications. If such a test demonstrates that the applicable emission requirement is met, no more than one such test shall be required during any twelve (12) consecutive calendar month period. Provided, however, that should the joint board determine that the test did not represent normal operating conditions or emissions, additional tests may be required. Required tests shall be conducted in accordance with procedures approved by the director as being in accordance with sound analytical and sampling procedures. Such tests shall be conducted by reputable, qualified individuals, as approved by the director, and a certified written copy of the test results signed by the person conducting the test shall be provided to the director.

(b) The joint board may conduct tests of emissions of contaminants from any source. Upon written request from the joint board, the person responsible for the source to be tested shall cooperate with the joint board in providing all necessary test ports in stacks or ducts and such other safe and proper facilities, exclusive of instruments and sensing devices, as may be reasonably required to conduct the test with due regard being given to expenditures and possible disruption of normal operation of the source. A report concerning the findings of such tests shall be furnished to the person responsible for the source upon request.

(c) The joint board may require the owner or operator of any emission source which is subject to the provisions of these regulations to install, use, and maintain such stationary monitoring equipment as is required to demonstrate continuing compliance with any applicable emission limitations, and to maintain records and make reports regarding such measured emissions to the joint board in a manner and on a schedule to be determined by the director. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-23. Restriction of emission of odors.

(a) No person shall cause or permit odorous emissions so as to cause air pollution.

(b) An odor occurrence shall be deemed a violation when a complaint from one person, or more, is received and substantiated at the point of complaint within two (2) hours by observations of the director. The director shall deem the complaint valid only if he finds the occurrence of sufficient duration or frequency so that he can make two (2) measurements of scentometer No. 2 odor strength within a period of one hour, these measurements being separated by at least fifteen (15) minutes.

(c) Odor measurement shall be made with a scentometer as manufactured by Barnebey-Cheney Company or any other instrument, device, or technique designated by the joint board as producing equivalent results. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-24. Sulfur compound emissions.

(a) No person shall cause or permit tail gas emissions from any sulfuric acid manufacturing plant which contain more than:

(1) Thirty (30) pounds of sulfur dioxide per ton of ninety-eight (98) per cent sulfuric acid produced, or

(2) Five-tenths (0.5) pound of acid mist per ton of ninety-eight (98) sulfuric acid produced, or

(3) Two-tenths (0.2) pound of sulfur trioxide per ton of ninety-eight (98) per cent sulfuric acid produced.

(b) No person shall cause or permit the emission of sulfur oxides from any primary nonferrous smelters to exceed the amounts allowed in Table P-2 during any one hour.

TABLE P-2

Nonferrous Smelter Allowable Emissions

Type of Smelter	*Sulfur Oxide Emissions*
Zinc smelters	**$0.564X^{0.85}$**
Lead smelters	**$0.98X^{0.77}$**

Where: X = total sulfur fed to smelter in lb/hr

(c) No person shall cause or permit the emission or combustion of any process gas stream that contains H_2S in concentrations greater than ten (10) grains per one hundred (100) cubic feet of gas without removal of the hydrogen sulfide in excess of this concentration. The provisions of this regulation shall not apply to:

(1) The combustion of such fuels for indirect heating purposes.

(2) The combustion of such fuels where the gaseous products of combustion are used as raw materials for other processes.

(3) The incineration of such gases having a gross heating value of less than three hundred (300) BTU per cubic foot at standard conditions and the fuel used to incinerate such waste gases does not contain sulfur or sulfur compounds in excess of the amount specified by this regulation. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-24.1. Hydrocarbon emissions; stationary sources.

(a) No person shall place, store, or hold in any stationary tank reservoir or other container of more than forty thousand (40,000) gallons capacity any gasoline or any petroleum distillate having a vapor pressure of 3.0 pounds per square inch, absolute, or greater under actual storage conditions unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient to prevent vapor or gas loss to the atmosphere or is designed, and equipped with one of the following vapor loss control devices:

(1) A floating roof, such as a pontoon type, double deck type roof or internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the gasoline or petroleum distillate has a vapor pressure of 13.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place.

(2) A vapor recovery system consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(3) Other equipment or means of equal efficiency for purposes of air pollution control as may be approved by the department.

(b) No person shall emit to the atmosphere any ethylene waste gas stream of more than fifty (50) pounds per day from any ethylene producing plant or other ethylene emission source unless the waste gas is properly burned at thirteen hundred (1300) degrees Fahrenheit for 0.3 seconds or greater in a direct flame afterburner or equally effective device as approved by the director.

(c) No person shall emit to the atmosphere any hydrocarbon gas stream, excluding methane of more than fifty (50) pounds per day from a vapor blow down system unless these gases are burned by smokeless flares or an equally effective control device as approved by the joint board. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-25. Control of carbon monoxide emissions.

(a) No person shall cause or permit the emission of carbon monoxide gases generated during the operation of a grey iron cupola unless they are burned at thirteen hundred (1300) degrees Fahrenheit for 0.3 seconds or greater in a direct flame afterburner or equivalent device as approved by the director.

(b) No person shall emit carbon monoxide waste gas stream from any catalyst regeneration of a petroleum cracking system, petroleum fluid coker, or other petroleum process into the atmosphere, unless the waste gas stream is burned at thirteen hundred (1300) degrees Fahrenheit for 0.3 seconds or greater in a direct flame afterburner or equivalent device as approved by the director. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-26. Control of nitrogen oxide emissions.

No person shall cause or permit the emission of nitrogen oxides from any nitric acid manufacturing plant to exceed a total of 5.8 pounds of nitric oxide and/or nitrogen dioxide (calculated as NO_2) per ton of one hundred (100) per cent acid produced. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-26.1. Incinerators.

(A) *General provisions.*

(1) This section shall apply to any incinerator used to dispose of refuse or other wastes by burning and the

processing of salvable material by burning. Notwithstanding definitions in other sections, as used in this section the word "refuse" includes garbage, rubbish, nonresidential waste, trade wastes, leaves, salvable material, agricultural wastes, and other wastes. The word "incinerator," as used in this section, includes incinerators and other devices, structures, or contrivances used to burn refuse (as defined herein) or to process refuse by burning.

(2) The burning capacity of an incinerator shall be the manufacturer's or designer's guaranteed maximum rate or such other rate as may be determined by the joint board in accordance with good engineering practice. In case of conflict, the joint board determination shall govern.

(3) In calculating the amount of particulate matter in stack gas, the loading shall be adjusted to twelve (12) per cent carbon dioxide in the stack gas. The carbon dioxide produced by burning of any liquid or gaseous fuel in the incinerator shall be excluded from the calculation to twelve (12) per cent carbon dioxide. Emissions shall be measured when the incinerator is operating at its maximum capacity or at any other burning rate during which emission of particulate matter is greater, when expressed as grains per standard dry cubic foot of stack gas.

(4) Instructions for proper operation of each incinerator, including charging procedures, necessary air intake and damper adjustments, use of auxiliary burners, etc., shall be conspicuously posted, and maintained, at the incinerator location. In addition, all new incinerators, or incinerators remodeled to conform with these regulations, shall have a plate designating the rated capacity of the incinerator and any auxiliary burners permanently affixed to the incinerator.

(B) *Provisions applicable to existing incinerators.*

(1) No person shall cause or permit the emission of particulate matter from the stack or chimney of any existing incinerator in excess of the following:

(a) Incinerators with a maximum refuse burning capacity of two hundred (200) to twenty thousand (20,000) pounds per hour: 0.2 grains of particulate matter per standard dry cubic foot of exhaust gas.

(b) Incinerators with a waste burning capacity of less than two hundred (200) pounds per hour: 0.3 grains of particulate matter per standard dry cubic foot of exhaust gas, corrected to twelve (12) per cent carbon dioxide.

(c) Incinerators with a waste burning capacity in excess of twenty thousand (20,000) pounds of waste per hour: 0.1 grain of particulate matter per standard dry cubic foot of exhaust gas, corrected to twelve (12) per cent carbon dioxide.

(2) No existing incinerator shall be used for the burning of refuse unless such incinerator is a multiple chamber incinerator. Existing incinerators which are not multiple chamber incinerators may be altered, modified, or rebuilt as may be necessary to meet this requirement. The joint board may approve any other alteration or modification to an existing incinerator if such be found to be equally effective for the purpose of air pollution control as a modification or alteration which would result in a multiple chamber incinerator.

(C) *Provisions applicable to new incinerators.*

(1) All new incinerators shall be multiple chamber incinerators, provided that the joint board may approve any other kind of incinerator if it finds in advance of construction or installation that such other kind of incinerator is equally effective for purposes of air pollution control as an approved multiple chamber incinerator.

(2) No person shall cause or permit the emission of particulate matter from the stack or chimney of any new incinerator in excess of the limitation prescribed in subsection (B)(1) of this section.

(D) *Performance testing.*

(1) Waste burned in conjunction with the performance tests specified in this regulation shall be a representative sample of the refuse normally generated by the operation which the incinerator is intended to serve.

(2) In calculating the amount of particulate matter in stack gas, the loading shall be adjusted to twelve (12) per cent carbon dioxide in the stack gas. The exhaust gases produced in the burning of liquid or gaseous fuel in the incinerator shall be excluded from the calculations to twelve (12) per cent carbon dioxide. Emissions shall be measured when the incinerator is operating at the manufacturer's or designer's guaranteed maximum rate or such other rate that may be determined by the joint board in accordance with good engineering practice. In case of conflict, the joint board's determination shall govern.

(3) A performance test to determine compliance with the opacity requirements specified in section 2A-19 of these regulations shall be performed by the director on each new incinerator, and each existing incinerator modified or rebuilt to conform with this regulation.

(4) A measurement of particulate matter emission performance test may be required by the director on any incinerator. The initial performance test shall be performed at the expense of the vendor or operator by an independent testing organization or by any other qualified person subject to the approval of the director. The performance test may be observed by the director or his designated representative and must be performed in accordance with testing procedures approved by the director.

(E) *Handling of incinerated refuse residue, ashes and/or incineration processed salvable material.*

(1) It shall be the responsibility of the incinerator owner or operator to handle and/or treat the incinerated residue, ashes and/or incineration processed salvable

material in such a manner as to eliminate residual smoldering, fuming, smoking, and/or dusting.

(2) The director shall require that the incinerator owner or operator take such measures as are necessary to eliminate or prevent such residual smoldering, fuming, smoking, and/or dusting. The director shall specifically require that such residue, ashes and/or incinerator processed salvable material be quenched with water, kept in covered containers or treated or handled in such fashion as the director deems necessary. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-27. Air pollution emergencies—General provisions.

(a) Notwithstanding any other provision of the air pollution control regulations, or other provisions of the law, these episode regulations are designed to prevent the excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the public health; they shall apply to all emission sources and premises located in any geographic area for which an air pollution emergency status has been established by the director in accordance with section 2A-28.

(b) For the purposes of this regulation the following definition will apply: "Soiling index" shall be presumed to mean the concentration of particulates as measured by the automatic paper-tape sampler method, "ASTM Standard Method of Test for Particulate Matter in the Atmosphere, Optical Density of Filtered Deposit, D-1704-61" expressed as coefficient of haze (COH) per one thousand (1,000) lineal feet. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-28. Same—Episode criteria.

(a) Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the director determines that the accumulation of air contaminants at any sampling location is attaining, or has attained, levels which could, if such levels are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the director will be guided by the following criteria:

(1) *Air pollution forecast.* The issuance of a weather bureau high pollution potential advisory, or the equivalent indication by (a) local weather bureau meteorologist that a stagnant atmospheric condition will exist for the next thirty-six (36) hours.

(2) *Air pollution alert.* The average SO_2 level for the previous twenty-four (24) consecutive hours equals 0.3 ppm (eight hundred (800) micrograms per cubic meter) or the average two (2) hour soiling index for the previous twenty-four (24) consecutive hours equals 3 COH/1000 lineal feet, or the suspended particulate level for the previous twenty-four (24) consecutive hours equals three hundred seventy-five (375) micrograms per cubic meter, or the product of the average soiling index and the SO_2 concentration (ppm) for the previous twenty-four (24) consecutive hours equals 0.20, or the product of the average suspended particulate and SO_2 concentration (micrograms per cubic meter) for the previous twenty-four (24) consecutive hours equals sixty-five thousand (65,000), or the average CO level for the previous eight (8) consecutive hours fifteen (15) ppm, or the average Ox level for the preceding one hour equals 0.1 ppm, or the average NO_2 concentration for the preceding one hour equals 0.6 ppm, or the average NO_2 concentration for the preceding twenty-four (24) consecutive hours equals 0.15 ppm, and the local meteorologist predicts no major changes in existing adverse meteorological conditions for at least an additional twelve (12) hours.

(3) *Air pollution warning.* The average SO_2 level for the previous twenty-four (24) consecutive hours equals 0.60 ppm (one thousnd six hundred (1,600) micrograms per cubic meter), or the average two (2) hours soiling index for the previous twenty-four (24) consecutive

the preceding twenty-four (24) consecutive hours equals 0.4 ppm, and the local meteorologist predicts no major changes in existing adverse meteorological conditions for at least an additional twelve (12) hours.

(b) The provisions of section 2A-27 notwithstanding, the director may declare any status prescribed therein on the basis of deterioration of air quality to the criteria levels alone and without the issuance of a high air pollution potential advisory or equivalent advisory from a local weather bureau meteorologist; if deemed necessary to protect the public health.

(c) Once declared, any status established on the basis of this regulation shall remain in effect until the criteria for that level is no longer met. At such time the next lower status will be assumed. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-29. Emission reduction requirements.

(a) Upon the declaration of any air pollution episode status by the director the provisions of subsections (b), (c) and (d) of this regulation shall be considered as an emergency order of the board. Such provisions shall be complied with immediately.

(b) During any time designated as an air pollution alert period no person shall operate any contaminant emission sources except in compliance with the requirements of Table E-1.

(c) During any time designated as an air pollution warning period no person shall operate any contaminant emission sources except in compliance with the requirements of Tables E-1 and E-2.

(d) During any time designated as an air pollution emergency period no person shall operate any contaminant emission source except in compliance with the requirements of Tables E-1, E-2 and E-3.

TABLE E-1

Source Restrictions

Air Pollution Alert Status

Source Category	*Action Required*
1. All private, public and commercial premises	a. There shall be no open burning except as required for immediate disposal of inflammable or otherwise hazardous gases or liquids.
	b. The use of incinerators for the disposal of any waste materials shall be limited to the hours between 12:00 noon and 4:00 p.m.
	c. Boiler lancing or soot blowing of fuel burning equipment requiring such operations shall be limited to the hours between 12:00 noon and 4:00 p.m.
2. Coal or oil-fired electric power generators facilities	a. Units shall be operated on natural gas when possible.
	b. Units shall be operated on the lowest sulfur and ash fuels available.
	c. Substantial utilization shall be made of power generated outside of the area included in episode status declaration.
3. Other coal and oil-fired process steam generating facilities	a. Units shall be operated on natural gas when possible.

Source Category	*Action Required*
	b. Units shall be operated on lowest sulfur and ash fuels available.
	c. Steam loads shall be reduced to extent possible consistent with continuing plant operations.
4. Manufacturing, industries required to submit plans in accordance with section 2A-30	a. Air contaminants emissions from processing operations shall be substantially reduced by curtailing or postponing production and allied operations to the extent possible without causing economic hardships.

TABLE E-2

Source Restrictions

Air Pollution Warning Status

Source Category	*Action Required*
1. All private, public and commercial premises	a. The use of incinerators for the disposal of any waste materials shall be prohibited.
2. Coal or oil-fired power generating facilities	a. Maximum utilization shall be made of power generated by facilities outside of the area included in the episode status declarations.
3. Other coal and oil-fired process steam generating facilities	a. Preparation shall be made to immediately take action required under emergency status.
4. Manufacturing industries required to submit episode plans in accordance with section 2A-30	a. Air contaminant emissions from processing operations shall be reduced to the maximum degree possible by curtailing and postponing production and altered operations to the extent feasible with, if necessary, the assumption of reasonable economic hardships.
5. Transportation	a. The use of private and commercial motor vehicles should be limited by deferring unnecessary travel and utilizing car pools or mass transportation facilities where possible.

TABLE E-3

Source Restrictions

Air Pollution Emergency Status

Source Category		*Action Required*
1. All private, public, and commercial premises	a.	The following places of employment shall immediately cease operations: (1) Mining and quarrying operations. (2) Construction projects except as required to avoid emergent physical harm. (3) All manufacturing operations except those operating under an approved episode plan. (4) Wholesale trade establishments. (5) Governmental units, except as required to implement the provisions of these regulations and other operations essential to immediate protection of the public welfare and safety. (6) Educational institutions. (7) Retail trade and service establishments except pharmacies, food stores and other similar operations providing for emergency needs. (8) Other commercial service operations such as those engaged in banking, insurance, real estate, advertising, etc. (9) Amusement and recreational facilities.

Source Category		*Action Required*
2. Electric power generating facilities		Same as Table E-2.
3. Process steam generating facilities	a.	Facilities shall be shut down to the maximum extent possible consistent with preventing extensive equipment damage.
4. Manufacturing industries required to submit episode plan in accordance with Section 2A-30	a.	Air contaminant emissions from processing operations shall be reduced to the maximum degree possible by ceasing or drastically curtailing all production and allied operations to the extent feasible with due regard to any immediate likelihood of resultant personal injury or substantial equipment damage.
5. Transportation	a.	The use of motor vehicles shall be restricted to meeting private and public emergency needs.

(Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-30. Emergency episode plans.

(a) Any person responsible for the operation of a source of air contamination adjudged to be of major concern with respect to possible implementation of air pollution emergency episode control procedures either because of the nature or the quantity of its emissions shall, at the request of the joint board prepare an emergency episode plan to be implemented in the event that any episode status is declared by the director. Such plans shall provide for the reduction of emissions of those contaminants for which episode criteria have been established and, consistent with good industrial practice and safe operating procedures, reflect adherence to the requirements established in Tables E-1, E-2 and E-3 of section 2A-29.

(b) All plans requested under the provisions of section 2A-30(a) shall be submitted to the joint board in written form, within sixty (60) days of receipt of such a request; and shall be subject to review and approval by the joint board. Such plans shall indicate the sources of contamination to be controlled or eliminated; the manner in which such action will be accomplished; and the approximate amount of specific contaminant emissions that will be eliminated.

(c) The joint board after reviewing any plan submitted in accordance with this regulation shall approve or disapprove it on the basis of its consistency with the intent of section 2A-29. If such a plan is disapproved the joint board shall state its reasons for disapproval and specify those changes needed to provide an approvable plan. Such action shall be in writing.

(d) Those plans which are approved under subsection (c) of this regulation shall be maintained on the premises to which they apply and shall be implemented during those periods for which an episode status has been established. Implementation of such a plan shall be considered as an emergency order of the joint board to immediately reduce or discontinue the emission of contaminants. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-31. Penalties for violation of chapter or air pollution control regulations.

Any person, firm or corporation who shall violate any provisions of this chapter, or any provision of any regulation adopted by the joint board pursuant to authority granted by this chapter shall, upon conviction, be punished by a fine not exceeding five hundred dollars ($500.00) or by imprisonment for a period not exceeding ninety (90) days, or by both such fine and imprisonment, and each day's failure to comply shall constitute a separate violation. (Ord. No. 52677, § 1, 2-28-74)

Sec. 2A-32. Conflict of ordinances, effect of partial invalidity.

(a) In any case where a provision of this chapter is found to be in conflict with a provision of any zoning, building, fire, safety, or health ordinance or code of Kansas City, Kansas, existing on the effective date of this chapter, the provision which, in the judgment of the joint board, establishes the higher standard for the promotion and protection of the health and safety of the people shall prevail. In any case where a provision of any other ordinance or code of the City of Kansas City, Kansas, existing on the effective date of this chapter which establishes a lower standard for the promotion and protection of the health and safety of the people, the provisions of this chapter shall be deemed to prevail, and such other ordinances or codes are hereby declared to be repealed to the extent that they may be found in conflict with this chapter.

(b) If any section, subsection, paragraph, sentence, clause or phrase of this chapter should be declared invalid for any reason whatsoever, such decision shall not affect the remaining portions of this chapter, which shall remain in full force and effect; and, to this end, the provisions of this chapter are hereby declared to be severable. (Ord. No. 52677, § 1, 2-28-74)